Global Health Promotion

A new section for *Global Health Promotion* journal: doing research in health promotion

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The question of the body of knowledge to use to base health promotion policies and practices has been raised from the outset. Over time and with the vast increase in the scientific knowledge base available, this question has taken a radically different turn. Indeed, while it has long been about relying on scarce and disparate research findings, it is no longer the case today. Long described as a multidisciplinary enterprise (1) and eclectic from methods' point of view (2), health promotion research is gradually constituting itself as a distinct field, a space in which researchers share an identity, frameworks of thinking and of knowledge production, and an explicit ethical framework (3).

It is with the goal of formalizing the constitution of a distinct field for health promotion research and of mobilizing the researchers who participate in it that we have launched the publication project of a *Global Handbook of Health Promotion Research* (4). In order to concretely base our structuring of the field on the practices implemented in projects led by researchers who identify themselves in this field, we have widely circulated a call for contributions. This call was a success that greatly exceeded our expectations. Having received more than 80 chapters from all continents, we have opted to develop and publish a three-volume handbook.

The subtitle of the first volume is: *Mapping Health Promotion Research*. This volume is intended as a broad overview of the research done in health promotion and how it is conducted. It includes 50 chapters in which researchers describe in detail the practices they implement in research projects and programs. Our synthesis of this material allowed us to inductively identify markers to delineate three structuring dimensions for the field of health promotion research: the policies and practices studied by the research (the objects of study), the methods of knowledge production (the epistemological dimension), and what founds the legitimacy of research (the ethical dimension).

The subtitle of the second volume is: *Framing Health Promotion Research*. This volume offers a complete in-depth approach to the field's structure of health promotion research. The three dimensions described above (ethical framework, epistemology, objects of study) constitute the framework. Each of the dimensions is presented and discussed in detail in short didactic chapters.

The subtitle of the third volume is: *Doing Health Promotion Research*. This volume is composed of short didactic chapters written by authors who have in-depth expertise regarding a paradigm, research strategy or method relevant to health promotion research. These different chapters are introductions to these paradigms, approaches and methods which are presented and discussed in relation to the specific challenges of health promotion research that they aim to solve.

Aware of the fact that the paradigms, approaches and methods presented in volume 3 cannot claim to be an exhaustive description of health promotion research practices and that, moreover, the field is evolving rapidly, we believe it is important to provide a space to continue to publish, collect and make available this material. This is why, in partnership with the IUHPE and its scientific publication, *Global Health Promotion*, we are creating a new section that will receive articles constituting an introduction to a paradigm, a research strategy or a relevant method for health promotion. The articles will go through the rigorous

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journal review process and the entire collection will constitute a methodological repository for the community of health promotion researchers. This new section therefore fits as a living and evolving complement to volume 3 of the *Global Handbook of Health Promotion Research*. Specific guidelines for submitting articles for this new section are available in the Guidelines to Authors on the GHP website. This new section will be developed by the editors of the *Global Handbook*: Didier Jourdan and Louise Potvin.

Although modest, such process is no less ambitious. Meeting the challenge of structuring a relevant knowledge base is decisive for the development of health promotion policies and practices at the global level in all the diversity of cultural, social and economic contexts. This is about recognition, on the one hand, and capacity building on the other.

Allowing the field of health promotion research to be both clearly identified and recognized constitutes a major lever for the amplification of research via researchers' access to the political and financial support necessary for their work. In fact, the methods for evaluating projects by peers still too often lead to the exclusion of research designs outside of the mainstream academic disciplinary frameworks. This recognition is also essential to the attractiveness of our field and to the careers of the researchers who engage in it.

Structuring health promotion research as a distinct field appears to us to be an essential step in supporting efforts to professionalize health promotion workers and strengthen health promotion systems. To grow and maintain its relevance as the practice evolves, such a body of knowledge needs to be sustained by separate research, without necessarily being closed to ad hoc contributions from other disciplines. Formalizing a framework for identifying research practices that lead to the production of relevant knowledge is an essential step for the constitution of a field of research specific to health promotion. It is clear that the knowledge produced in other areas of expertise, such as epidemiology, sociology, political science, community psychology, education and many others, while very useful, is not sufficient to fully inform the practices and decisions relating to health promotion.

Now is the time to enter a phase of formalizing the foundation of our field of research, to share a vision, approaches and a toolbox. We will give substance to this ambition together, in the diversity of our scientific, cultural and geographic roots. Together, we can give health promotion research the prominence it deserves in the health research community.

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Social distancing during COVID-19: threat and efficacy among university students in seven nations

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Abstract: COVID-19 has been spreading fast worldwide, and until effective and safe vaccines have been widely adopted, preventive measures such as social distancing are crucial to keep the pandemic under control. The study's research questions asked which psychosocial factors predict social distancing behavior and whether there are country-level differences in social distancing? Using the Extended Parallel Process Model (EPPM) as a theoretical lens, we examined the predictive effects of threat and efficacy and demographic variables on adherence to the COVID-19 preventive behavior of social distancing using a survey among an international sample of university students. Using path modeling and analysis of covariance, we confirmed the predictive effects of the EPPM on social distancing behavior. Our final model showed that perceived susceptibility to COVID-19 was both directly and indirectly (through response efficacy) associated with social distancing behavior; that perceived severity of COVID-19 yielded a significant indirect effect on social distancing behavior through both self-efficacy and response efficacy; that perceived susceptibility is indirectly and positively associated with social distancing behavior through response efficacy; and that self-efficacy and response efficacy were directly associated with social distancing behavior. Additionally, there were country-level differences in social distancing. Possible explanations for and implications of these findings are discussed.

Keywords: health promotion, communicable disease, communication (including social marketing, education campaign, media communications)

Background

The virus causing COVID-19 is a novel coronavirus that was first identified in Wuhan, China (1). The virus quickly spread globally, and on January 30, the World Health Organization (WHO) declared the outbreak a global public health emergency, with 9000 cases reported worldwide, including in 18 countries beyond China, and on March 11 declared it a global pandemic (2). Worldwide, as of February

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15, 2021, there were 108,579,352 total cases, with 2,396,408 total confirmed deaths (3). Nationally and locally, restrictions were imposed at different levels, from stay-at-home orders to quarantine.

The most common symptoms of COVID-19 are fever, cough, shortness of breath, and other breathing difficulties. Loss of smell is also widely reported. In more severe cases, the infection can cause pneumonia, severe acute respiratory syndrome, and death (4). COVID-19 vaccines are still in the process of being administered; however, there are currently few proven large-scale effective treatments for COVID-19 and the best way to prevent the illness is to avoid being exposed to the virus causing it. Consequently, the public play a key role in controlling the spread of a virus by adopting preventive measures (5). Accordingly, communication about COVID-19 has primarily focused on preventive measures, of which social distancing is one of the most high-profile (1). Of note, *social* is now referred to as *physical* distancing; however, to remain consistent with the terminology used in the study measures and practices at the time, we use social distancing here.

Social distancing – reducing social and community contacts through tactics such as increased home isolation, school closures, and reducing workplace numbers – is a recommended strategy in pandemic outbreak plans of most countries (6). One of its primary goals is flattening the curve of a pandemic outbreak, reducing the peak attack rate so pressure on health services will be reduced and more time will be available to develop and administer vaccines as well as effective and safe treatments (6). It is critical that young adults, especially college students, adhere to social distancing guidelines to help flatten the curve. However, young adults are more prone to sensation-seeking and are less likely to adhere to social distancing recommendations (7). Early reports to the Centers for Disease Control and Prevention (CDC) revealed instances when college students' spring break trips led to COVID-19 outbreaks (8). Disease spread is also linked to dorm density, college parties, and shared alcohol consumption (9). At a time when social activities are essential for identity formation, requirements to social distance could increase an individual's fear of missing out and lead to behavioral reactance (10). Taken together, there is a need for a stronger understanding of the antecedents that affect college students' perceptions of social distancing.

Health behavior theories are an essential component of designing effective public health messaging (11). One theory that may be helpful in guiding public health message strategies to promote social distancing is the Extended Parallel Process Model (EPPM) (12). The EPPM suggests that for a health behavior such as social distancing to occur, an individual's perceived threat *and* their perceived efficacy must both be high (12). Specifically, an individual's intentions and subsequent behaviors are motivated by the interaction between threat and efficacy appraisals. First, an individual must have a high threat appraisal to be motivated to action, which consists of severity (i.e. perceptions that COVID-19 is serious) and susceptibility (i.e. perceptions that oneself and important others may contract COVID-19) (12). These perceptions can positively or negatively affect health behaviors, and these effects are mediated by an individual's efficacy appraisals, including self-efficacy (i.e. perceptions that an individual can act to protect themselves and others against COVID-19) and response efficacy (i.e. perceptions that these actions will be successful in avoiding the threat) (12).

COVID-19 severity and symptomatic susceptibility increase with age (1), which creates a barrier to promoting social distancing to college students because it is primarily an altruistic behavior rather than a self-protective behavior. Thus, more research is needed to understand college students' perceptions of social distancing to enhance communication strategies for increasing this behavior. Adherence to recommended preventive behaviors is still of the utmost importance to control the outbreak, and social distancing is still one of the most effective strategies available. As such, this study examined the predictive effects of EPPM and demographic variables on adherence to the COVID-19 preventive behavior of social distancing among an international sample of university students, advancing the following research questions (RQs):

RQ1: Which psychosocial factors predict social distancing?

RQ2: Are there country-level differences in social distancing?

Method

A survey of 2359 university students in seven nations (the US, China, Italy, the Netherlands, Belgium, Romania, and Kuwait) was conducted to

explore the relationships among demographics, healthcare-related variables, and psychosocial factors with the COVID-19 preventive measure of social distancing. The study was approved by the Institutional Review Board at a large research university in the Mid-Atlantic US; ethical clearance was also received from the participating Belgian and Dutch universities.

Participants read the following:

> Coronaviruses are a large family of viruses that cause illness ranging from the common cold to more severe diseases such as Severe Acute Respiratory Syndrome (SARS). COVID-19 is the infectious disease caused by the most recently discovered coronavirus and is also called the novel coronavirus. This new virus and disease were unknown before the outbreak began in Wuhan, China, in December 2019. During the remainder of this survey, we will refer to this virus as the novel coronavirus.

Sample

A total of 2359 participants from seven countries completed the survey between March 31 and April 15, 2020. Participants were recruited by faculty at universities in the seven countries. Native speakers (all co-authors of this study) translated the study into Arabic, Chinese, Dutch, Italian, and Romanian. Survey responses were collected using a Qualtrics survey. Distribution of the survey was handled by faculty at the respective universities (also all co-authors on this paper): USA (J.G.), Belgium (S.P.), China (J.N.), Italy (A.L.), Kuwait (M.A.), Netherlands (N.B.), and Romania (I.C.).

Measurements

Perceived severity

Perceived severity of COVID-19 was measured using a combination of items developed by Myers and Goodwin (13), modified for the current study, as well as researcher-generated items: 'I believe that the novel coronavirus is severe', 'The novel coronavirus is a disease one can die from', 'I am afraid of the novel coronavirus', 'If I got the novel coronavirus it is likely I would have to be hospitalized', 'If I got the novel coronavirus, it is likely that the symptoms would not be very severe', 'If I got the novel coronavirus, I would just be able to rest and recover at home', 'Most people who get the novel coronavirus will not get very sick', and 'Most people who get the novel coronavirus do not need to be hospitalized' (the last four reverse-coded). The answer options to all eight questions ranged from 'strongly disagree' to 'strongly agree' on a five-point Likert scale. Cronbach's alpha for the items was 0.70.

Perceived susceptibility

Perceived susceptibility to COVID-19 was measured using five items: a combination of items developed by Myers and Goodwin (13), modified for the current study, as well as researcher-generated items: 'It is likely that I will get the novel coronavirus', 'I do not believe I can avoid getting the novel coronavirus', 'I worry a lot about getting the novel coronavirus', 'Working with many people each day increases my chances of getting the novel coronavirus', and 'Someone I know is likely to get the novel coronavirus'. The response options to all five questions ranged from 'strongly disagree' to 'strongly agree' on a five-point Likert scale. Cronbach's alpha for the items was 0.70.

Response efficacy

Response efficacy was measured using eight items: again, a combination of items developed by Myers and Goodwin (13), modified for the current study, as well as researcher-generated items. The first was 'Practicing social distancing can prevent contracting and spreading the novel coronavirus', and the following seven all began with the stem 'Considering the benefits of social distancing...': 'Social distancing can save lives', 'Doing my part to solve the novel coronavirus crisis', 'Social distancing is the socially responsible thing to do', 'Social distancing will help protect healthcare professionals', 'Social distancing will reduce my own risk for infection with the novel coronavirus', 'Social distancing is effective for preventing the spread of the novel coronavirus', and 'Social distancing can help slow the spread of the novel coronavirus'. Answers to these questions ranged from 'strongly disagree' to 'strongly agree' on a five-point Likert scale. Cronbach's alpha for the items was 0.91.

Table 1. Correlation matrix.

Variable	*1*	*2*	*3*	*4*
1. Social distancing behavior				
2. Perceived severity COVID-19	0.090*			
3. Perceived susceptibility COVID-19	0.079*	0.116*		
4. Response efficacy	0.212*	0.274*	0.152*	
5. Self-efficacy	0.389*	0.233*	0.017	0.314*

*$p < 0.01$.

Self-efficacy

Self-efficacy was measured by one item: 'How confident are you that you can practice social distancing?' with responses ranging from 'not confident at all' to 'very confident' on a five-point Likert scale.

Behavior

Respondents' reported behavior, adhering to social distancing, was measured using one item: 'How frequently have you carried out the following preventive behavior in the past week: social distancing?' The response options ranged from 'extremely infrequently' to 'extremely frequently' on a five-point Likert scale.

Demographics

Demographic variables included country, age, gender, and university grade level (graduate vs undergraduate enrollment).

Statistical analyses

Descriptive analyses were conducted for demographics as well as for health behavior theory constructs. Normality was assessed for all study variables by visual inspection of normal Q–Q plots. A correlation matrix was constructed to examine the bivariate relationships among perceived severity of COVID-19, perceived susceptibility to COVID-19, self-efficacy to carry out social distancing, response efficacy of social distancing, and past week social distancing behavior. Descriptive analyses were then performed for all primary study variables.

A path analysis procedure was conducted using AMOS 24.0 (Armonk, New York) to validate a hypothesized pattern of relations among the constructs leading from perceived severity of COVID-19 and perceived susceptibility to COVID-19 to self-efficacy and response efficacy related to social distancing, to past social distancing behavior. The criteria used to assess goodness of fit are listed in Table 1 (14). For the goodness-of-fit index (GFI) and adjusted GFI (AGFI), the cutoff for adequate fit is 0.90 (15,16). The normed fit index (NFI), incremental fit index (IFI), and Tucker–Lewis index (TLI) are relative fit indices and also use a cutoff of 0.90 for establishing adequate fit (15,16). Finally, the Akaike information criterion (AIC) and Bayesian information criterion (BIC) assess improvement in successive models, and lower values indicate better fit (14). Other indices to assess fit are a comparative fit index (CFI) (17) of greater than 0.90 (16), and a root mean squared error of approximation (RMSEA) of 0.08 or lower (18).

The path analysis procedure started with a saturated model in all possible direct paths between variables were specified. Following the trimming procedure outlined by Meyers *et al.* (19), four consecutive models freed up the least statistically significant paths from the prior model until all non-significant paths were eliminated. Once a final model was retained, indirect effects and bias-corrected significance levels were calculated using 2000 bootstrap samples.

Finally, an analysis of covariance (ANCOVA) was run to determine the effect of nationality on social distancing behavior after controlling for age, gender, and student status (undergraduate vs graduate).

Results

Participant characteristics

Of the students in this sample, 11.6% ($n = 278$) were from Belgium, 17.9% ($n = 427$) from China, 15.7% ($n = 374$) from Italy, 12.3% ($n = 293$) from Kuwait, 15.8% ($n = 378$) from the Netherlands,

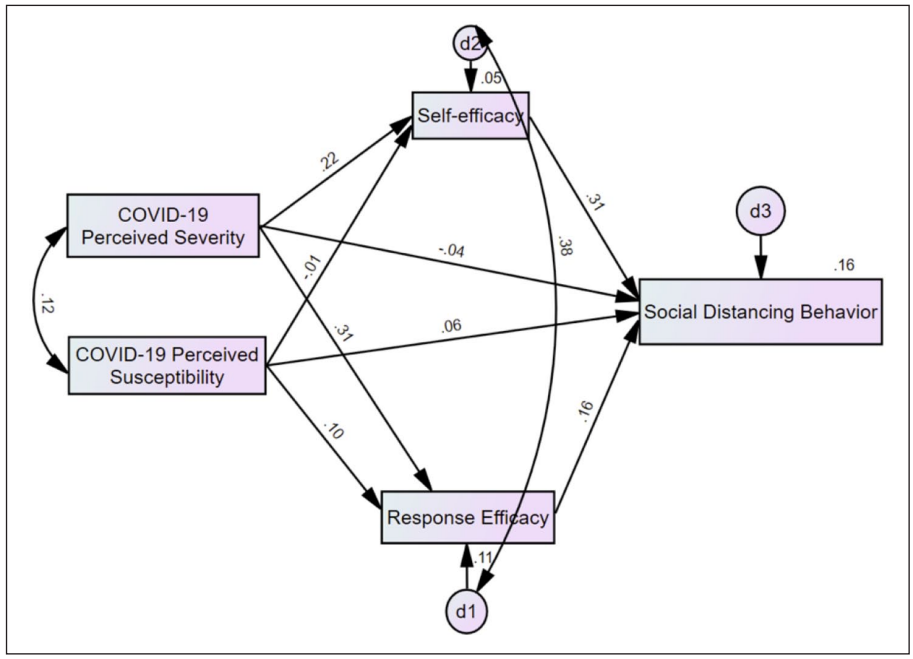

Figure 1. Original, saturated model.

13.1% ($n = 213$) from Romania, and 13.7% ($n = 327$) from the US. The majority, 63.2% ($n = 1509$), were female and 35.2% ($n = 841$) male, with 1.7% ($n = 39$) either identifying as 'other' or stating they preferred not to answer. The mean age was 22.7 years (standard deviation = 5.06). In addition, 75% ($n = 1792$) were undergraduate/Bachelor students, and 25% ($n = 592$) graduate students.

Social distancing behavior

When asked to respond to the statement, 'How often during the past week have you practiced social distancing?', 1.3% ($n = 30$) responded never, 6.3% ($n = 150$) only a few times, 20.1% ($n = 481$) occasionally, and 72.3% ($n = 1728$) frequently.

Correlation matrix

A correlation matrix was calculated showing the bivariate relationships among all primary study variables (Table 1). Almost all variables were positively related to each other, except for self-efficacy and perceived susceptibility.

Path model 1

The first path model (Figure 1, Table 2) – the original model with all potential paths being specified – explained 11.2% of the variance in response efficacy, 4.9% of the variance in self-efficacy, and 15.5% of the variance in social distancing behavior. However, this was a fully saturated model with all possible paths specified, so fit indices were invalid and are not reported.

Path models 2, 3, and 4

Following the trimming procedure outlined by Meyers *et al.* (19), the second path model freed up the least statistically significant path from the first model, which was between perceived susceptibility and self-efficacy. The third model freed up the least significant path from the second model, between perceived severity and social distancing behavior. The fourth model freed up the final non-significant path, between perceived susceptibility and social distancing behavior. The fit indices for this final model suggested good fit

Table 2. Standardized β-weights and *p*-values of the original, saturated model and final model.

Predictor	*Criterion*	*Original model*		*Final model*	
		β-*weight*	*p-value*	β-*weight*	*p-value*
Perceived severity	Self-efficacy	0.294	***	0.293	***
Perceived severity	Response efficacy	0.275	***	0.275	***
Perceived susceptibility	Response efficacy	0.084	***	0.086	***
Perceived susceptibility	Self-efficacy	–0.007	0.766		
Self-efficacy	Social distancing behavior	0.324	***	0.230	***
Response efficacy	Social distancing behavior	0.232	***	0.174	***
Perceived susceptibility	Social distancing behavior	0.092	0.039		
Perceived severity	Social distancing behavior	0.029	0.005		

***$p < 0.001$.

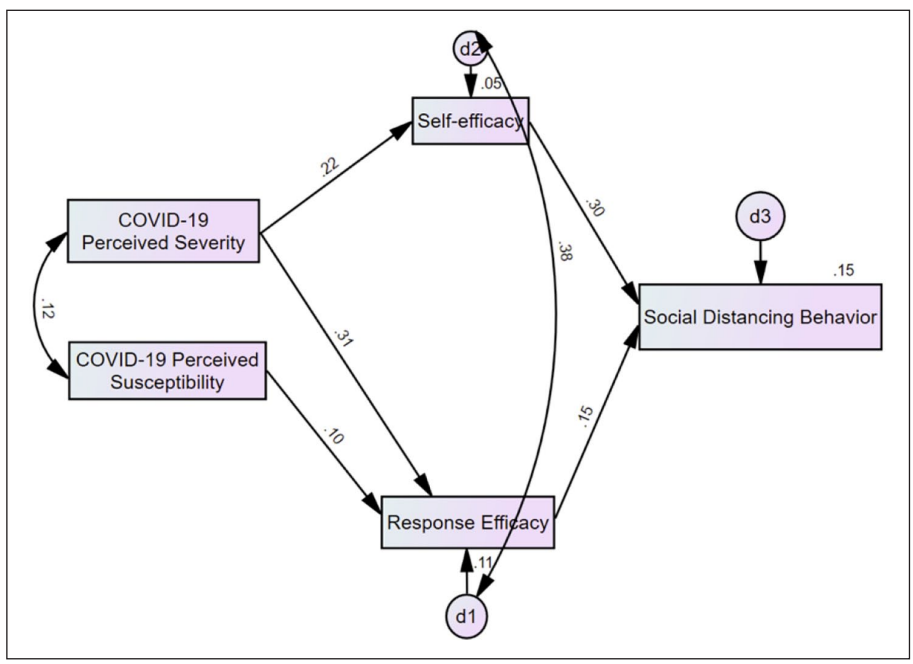

Figure 2. Final model.

(chi-squared to degrees of freedom ratio = 0.45; GFI = 0.998; AGFI = 0.99; NFI = 0.99; relative fit index = 0.967; IFI = 0.993; TLI = 0.976; CFI = 1.00; RMSEA = 0.034; AIC = 35.32; BIC = 103.947). In the fourth path model, all path coefficients were statistically significant and are presented with their *p*-values in Table 2. As a result, the fourth model was retained as the final social distancing behavior model (Figure 2).

Perceived severity yielded significant direct effects on self-efficacy and response efficacy. Perceived susceptibility also yielded significant direct effects on response efficacy. Similarly, self-efficacy yielded a significant direct effect on social distancing behavior, and response efficacy also yielded a significant direct effect on social distancing behavior.

The relationship between perceived susceptibility to COVID-19 and social distancing behavior was

fully mediated by response efficacy of social distancing ($\beta = 0.016$, $p = 0.001$) (see Figure 2). In addition, the relationship between perceived severity to COVID-19 and social distancing behavior was fully mediated by both self-efficacy for social distancing and response efficacy of social distancing ($\beta = 0.113$, $p = 0.001$) (see Figure 2). The final model explained 11.2% of the variance in response efficacy, 4.9% of the variance in self-efficacy, and 15.1% of the variance in social distancing behavior.

ANCOVA

RQ2 focused on whether there were country-level differences in social distancing behaviors, after controlling for other demographic covariates. The ANCOVA suggested that after controlling for age, gender, and student status, there was a statistically significant difference in social distancing behavior among countries: $F(6.2379) = 234.00764.941$, $p < 0.001$, partial $\eta^2 = 0.026$. Post-hoc analyses were performed with a Bonferroni adjustment. Italian students reported higher social distancing behavior than students from Kuwait ($p = 0.033$), the Netherlands ($p < 0.001$), USA ($p < 0.001$), Belgium ($p < 0.001$), and China ($p < 0.001$), and students from Romania reported higher social distancing behavior than students from the USA ($p < 0.001$), China ($p < 0.001$), the Netherlands ($p < 0.001$), and Belgium ($p < 0.001$).

Discussion

This study investigated the predictive effects of EPPM variables on social distancing behaviors of college students across seven different countries. To identify psychosocial factors associated with social distancing behavior, four path models were tested, and the fourth model was retained as it yielded all significant paths with good fit indices. This model showed that perceived susceptibility to COVID-19 was both directly and indirectly (through response efficacy) associated with social distancing behavior; and that perceived severity of COVID-19 yielded a significant indirect effect on social distancing behavior through both self-efficacy and response efficacy.

The final model suggests that perceived susceptibility is indirectly and positively associated with social distancing behavior through response efficacy. This finding is consistent with a systematic review by Bish and Michie (20), which found that during a pandemic, greater levels of perceived susceptibility as well as greater response efficacy were important predictors of behavior intended to prevent the disease. These relationships are also consistent with the paths predicted by the EPPM. The final model also found that self-efficacy and response efficacy were directly associated with social distancing behavior. Again, consistent with the EPPM, studies demonstrate that self- and response efficacy beliefs affect health behaviors (21). Correspondingly, Bish and Michie's (20) systematic review found that response efficacy was a significant predictor of behavioral intent related to pandemic preventive behaviors.

The final path model showed that perceived severity produced a significant effect on social distancing behavior via both self-efficacy and response efficacy. The EPPM posits that very high threat in the absence of efficacy leads individuals to control their fear, rather than the danger posed by the threat and the threat of COVID-19, overall, is much more severe than other infectious diseases like the seasonal flu. Lastly, across the models, severity affected efficacy appraisals more than susceptibility. This is an important finding because social distancing is often an altruistic rather than self-protective behavior for young adults. Taken as a whole, the current study extends previous research by uncovering possible pathways by which perceived susceptibility to and severity of COVID-19 lead, through self-efficacy and response efficacy, to social distancing behavior.

Country-level differences in social distancing

One of the notable findings of this study is that there were country-level differences in social distance behaviors, providing an international window into college students' social distancing. With many college campuses worldwide wrestling with the difficult choices of how to reopen as of the writing of this article, understanding these beliefs, the actions they may lead to, and the messaging that may impact both are of utmost importance to both the college student population as well as their friends, family members, and coworkers.

Students from China generally reported the lowest levels of social distancing and students from Italy and Romania the highest. One plausible reason for

these findings could be due to the timing of the survey. When data were collected, COVID-19 cases in China were low because of China's extremely stringent rules that had been put in place around social distancing, and the country was seeing a relaxing of restrictions. Conversely, at the time of data collection, Italy was seeing one of the most substantial spikes in COVID-19 cases, so the social distancing behavior of students there may have been proportionate to the COVID-19 threat. Romanian students' high rates of social distancing behaviors were a bit puzzling as the pandemic really did not spike there until much later (July 2020). Perhaps this high level of social distancing reported by Romanian students at the time served to contribute to a delayed spike. Despite these potential interpretations, it is important to emphasize that snowball sampling approaches or even idiosyncrasies of the universities surveyed could have accounted, in part, for some of these differences, so country-level generalizations should be undertaken with extreme caution, as should any regional generalizations.

Implications

The study results confirm the importance of perceived susceptibility, self-efficacy, and response efficacy, and these all should be considered when designing social distancing-promoting messages. When using the perceived severity of COVID-19 construct to communicate about social distancing behavior, public health communication professionals should include both response efficacy and self-efficacy in their message design. This is in line with the EPPM theoretical model: according to the EPPM, perceived threat will only be associated with actions to control the threat if both self-efficacy and response efficacy are present (12). In practice, this could take the form of helping people develop self- and response efficacy related to social distancing, possibly by highlighting how these behaviors make an impact on individuals and important others. Across countries, current messaging strategies have begun to incorporate strategies that exemplify these principles. For example, stickers placed on floors in businesses indicating appropriate distancing can increase self-efficacy, and posters stressing the importance of distancing for both protecting self *and* others should help those who feel personally at low risk to still perceive a need to engage in altruistic protective measures.

Strengths and limitations

A limitation of this study is its use of cross-sectional data, which makes it difficult to know whether the ordering of factors is accurate. Future studies should use longitudinal data and look at longitudinal mediators to more appropriately determine causality in these relationships. In addition, because this study used a snowball sample, the results of this study may not be fully generalizable relative to population-based surveys.

This study has several strengths. There is an urgent need to understand the factors that motivate young adults to participate in social distancing. A strength of the current study is that it provides health professionals with a deeper understanding of how efficacy and threat appraisals affect behavior across cultures. The nuanced findings regarding the impact of severity perceptions on response efficacy and self-efficacy can inform future studies for understanding young adults' altruistic health behaviors. Finally, this study investigated theoretically driven predictors of behavior, adding to the rigor of the design and the applicability.

Conclusion and future directions

The COVID-19 pandemic has required a rapid response from health professionals to communicate evolving protective health information to the public. Results from the current study show that message strategies that aim to enhance efficacy appraisals are necessary, urgent, and may be effective across cultures. The EPPM appears to be useful to inform future social distancing adherence campaigns, providing helpful guidance for public health professionals who will be focusing on these issues. COVID-19 will be an ongoing threat in the foreseeable future and it is of great importance that, until a safe, effective, and broadly accepted vaccine is available for all ages, social distancing will be practiced throughout the geographic area of the pandemic. Understanding the most effective psychosocial constructs for targeted messaging promoting social distancing is of vital importance for the continued uptake of social distancing recommendations.

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COVID-19 and health promotion in Brazil: community health workers between vulnerability and resistance

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Abstract: Health promotion in Brazil relies on community health workers (CHWs), frontline providers linking the health system with vulnerable groups. Brazilian CHWs are overwhelmingly women from poor backgrounds, with precarious and sometimes hazardous working conditions, as well as fragmented and unsystematic training. This paper evaluates how the COVID-19 pandemic exacerbated pre-existing vulnerabilities of CHWs (pertaining to low salary, precarious and hazardous working conditions and inadequate training) and created new ones, with a profound impact on their ability to carry out health promotion activities. Drawing on testimonials of dozens of CHWs and online discussions promoted by their unions, the paper reveals that during the pandemic CHWs were asked to continue their work without adequate training and protective equipment, thus exposing themselves to the risk of infection. It further shows how the pandemic rendered dangerous the close interaction with patients that is at the heart of their health promotion role. Nonetheless, CHWs sought to adapt their work. In the absence of leadership and coordination on the part of the federal government, CHWs mobilized different forms of resistance at the national and individual levels. Despite this, COVID-19 contributed to a trajectory of erosion of health promotion in Brazil. Findings from this case signal the difficulties for health promotion in low- and middle-income countries relying on CHWs to bridge the health system and vulnerable users.

Keywords: Brazil, community health workers, health promotion, vulnerability, resistance

Introduction

Health promotion has been an integral part of Brazil's public health system (*Sistema Único de Saúde*, SUS) since its creation in the 1988 Constitution (1). It focuses on: tobacco control; alcohol abuse; safe and sustainable mobility; peace and human rights (including prevention of domestic, gender-based and sexual violence); healthy nutrition; physical activity; and sustainable development (2). Community engagement and user participation have also been included within the remit of health promotion, in line with the commitment of the SUS towards the humanization of policy and the fostering of solidarity, equality and respect for diversity (3,4).

These faces of Brazilian health promotion stem from its origins as part of an effort to tackle socioeconomic and political inequalities – thus speaking to the goals of democratization, recognition of rights and civil society participation in the period after the military dictatorship. This expansive interpretation of health promotion – recognizing the importance of disease determination and the responsibility of the state in redressing underlying causes of ill health – has remained in tension with a restrictive focus on disease prevention. Nonetheless, the National Health Promotion Policy (*Política Nacional de Promoção de Saúde*, PNaPS), in place since 2006 and subsequently revised, recognizes the need to

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distinguish individual 'life styles' (*estilos de vida*) and collectively experienced 'ways of life' (*modos de viver*), the latter calling for the redressing of inequality and injustice through public policies (5).

Despite these ambitious goals, Brazil's health promotion was hit by the severe political, economic and institutional crisis raging in Brazil since the process leading to the impeachment of president Dilma Rousseff in 2016 (6). This crisis resulted in budget cuts and restrictions, the demise of the regulatory power of the state and the growing influence of corporate lobbies. The confluence of these factors led to the weakening of the National Sanitary Surveillance Agency (*Agência Nacional de Vigilância Sanitária*, ANVISA), responsible, among other things, for the regulation of the use of pesticides and trans fats (7). Health promotion in Brazil has also suffered from policy fragmentation (8). Owing to the decentralized nature of the SUS, policy implementation is heavily dependent on the municipal level. Originally, this was meant to ensure flexibility in the face of Brazil's epidemiological, territorial, socioeconomic and ethnic heterogeneity. In fact, it led to coordination problems and inequalities in access to health services. Decentralization also led to duplication of efforts, particularly when private and third-sector partners are involved in implementation, and to lack of transparency in the use of public funds.

Owing in part to a failure of leadership and coordination on the part of the federal government, the 2020 novel coronavirus disease (COVID-19) had a devastating impact in Brazil, both in terms of number of cases and deaths. This paper sets out to assess how the pandemic impacted the implementation of the country's health promotion policies. To do so, it takes the standpoint of the country's community health workers (*agentes comunitários de saúde*, CHWs). CHWs work on the frontlines of the SUS and play an essential role in day-to-day health promotion. They are an excellent indicator of the ability of the SUS to effectively reach out to users and deliver on its health promotion promises. The paper asks whether COVID-19 added to existing obstacles to health promotion in Brazil, by exploring the extent to which it exacerbated vulnerabilities in the lives and work of CHWs, and whether it created new ones. To understand the shifting policy landscape of Brazilian health promotion during the pandemic, the argument also explores attempts by CHWs to adapt their work and push back against the government's failings and neglect.

The article begins with an assessment of the situation of Brazilian CHWs prior to the COVID-19 pandemic. Considering prior vulnerabilities of these workers allows us to evaluate long-standing obstacles to health promotion faced by the SUS. We then describe the methodology of this study and present its findings along two dimensions: the impact of the pandemic on the vulnerabilities of CHWs and the adjustments made by CHWs in their work. In the discussion, we evaluate the impact of the pandemic against the background of the long-term trajectory of health promotion in Brazil. We also reflect about the prospects for health promotion in low- and middle-income countries in the post-pandemic era.

Health promotion before COVID-19 and the vulnerability of CHWs

In Brazil there are over 286,000 CHWs, frontline healthcare providers whose role is to bridge the health system and its users, particularly the most deprived and vulnerable (9). Their responsibilities include: keeping records of individuals and families; making regular household visits to monitor the vaccination of children; scheduling specialist appointments; advising on the correct use of medication; contributing to mosquito-control campaigns; and community mobilization (10). CHWs are essential for the implementation of health promotion in Brazil.

The lives and work of Brazilian CHWs are traversed by vulnerability. They are overwhelmingly women, with percentages above 75% and in some cases up to 95% (11). Many are poor and from non-white backgrounds. They are normally recruited from the communities where they work, the assumption being that they should hold an insider knowledge of territories. CHWs are tasked with tackling vulnerabilities while often living in deprivation and facing the same health risks as other health system users (12). In many cases, CHWs do not have preferential access to the services provided in the clinics where they are embedded, and thus face difficulties in accessing healthcare. Gaps in the provision of occupational health and mental health aggravate their situation of overwork (13). Proximity to the community

means that CHWs face constant demands from community members outside regular working hours (14). Overwork is one of the factors leading to burnout, stress and other psychological and physical problems among CHWs (15).

Despite a federal law (13.595/2018) instructing municipalities to hire CHWs as public servants, the profession of CHW in Brazil is overwhelmingly precarious, with different (formal and informal) selection processes leading to various contractual arrangements where labour rights are normally scarce (16). Moreover, the role of CHWs is marked by high turnover and is seen as a 'stop-gap' by many of the workers themselves (17). The prevalent view within the SUS of CHWs as unqualified, easily replaceable workers, whose main asset is their link to the community, is one of the reasons why training is fragmented, unsystematic, uneven across the country and often deployed when CHWs are already on the job (18). In addition to impairing their effectiveness, inadequate training also adds to the precarity of CHWs.

Health promotion relies upon the ability of CHWs to gain the trust of their communities and engage in day-to-day interactions, which normally occur in the domestic context. The underpinning rationale is that this engagement, when associated to community mobilization efforts (e.g. of people with similar conditions like diabetes or hypertension, or similar sociodemographic background like the elderly or teenagers) will redress inequalities in access to health services and work towards addressing determinants of health. However, the reliance on vulnerable CHWs has meant that the promise of health promotion has been left unfulfilled. Health promotion activities depend upon, and in turn help to reproduce, traditional visions of women as carers which permeate Brazil's highly patriarchal society, with female labour perceived as a natural extension of domestic work (19). Female CHWs, already living in position of vulnerability, are expected to deliver assistance to their communities while receiving little recognition, meagre economic rewards and no job security.

In sum, Brazilian health promotion is ostensibly directed at the reduction of health inequalities and socioeconomic vulnerabilities. Nonetheless, it is also complicit in the reproduction of vulnerabilities by relying upon a cadre of CHWs who are subject to precarious working and life conditions.

Data and methods

This study draws on three sources of data. The first is secondary data from an online survey on the impact of the pandemic on CHWs, conducted by Fundação Getúlio Vargas (FGV), Brazil, between April 15th and May 1st 2020 (20). It was disseminated through social media (Facebook and WhatsApp). The (online) response rate was 20%, with 860 CHW respondents from all over Brazil. Thirty-two questions were organized into four topics: sociodemographic profile; feelings during the pandemic; access to resources and support; changes in work conditions. Twenty-seven questions had multiple choices, and five were open questions. Most questions were adapted from previous research. The survey was pre-tested by three CHWs. For this paper, we used data from the following questions: 1) did you receive PPE? (Y/N) 2) did you receive training? (Y/N) 3) do you feel that your manager supports you? (Y/N) 4) do you fear working during the pandemic? (Y/N) 5) did your work change during the pandemic? (Y/N) 6) Can you give us some examples of how your work changed? This paper used descriptive data from questions 1–5 and some information from question 6. Due to the limitations imposed by the pandemic, the sample was collected by convenience and not by probabilistic sample design. Therefore, survey data cannot be generalized, and is here triangulated with data from other sources.

The second source of data was an online ethnography with a public Facebook group, one requiring approval for participation. Researchers asked for permission to participate and collect data. Data draws on posts created by CHWs in the period of March–May 2020. This included 112 discussions related to the pandemic, involving 600 CHWs.

The third source of data was interviews with two CHW union representatives: the president of a municipal union and the president of the National Confederation of Community Health Workers (*Confederação Nacional dos Agentes Comunitários de Saúde*, CONACS), the federation of all CHW unions in Brazil. Interviews were conducted online (using Zoom) in May 2020. We asked the representatives how CHWs were dealing with the pandemic; if they had access to resources; how the pandemic changed their work; and how the unions reacted to the new context. Each interview lasted

about 1 hour 30 minutes. Interviews were transcribed and supplemented by an analysis of public videos and posts from Ilda Correia, the president of CONACS, on social media.

All discussions in Facebook groups, interviews and posts from CONACS were analysed in NVivo using axial codes: fear; feeling of support; working conditions (access to personal protective equipment (PPE) and training); changes in tasks; forms of resistance.

Except for the interviews, we base our discussion on publicly available and secondary data. To preserve anonymity, we do not cite names of participants in the Facebook group. The research follows ethical guidelines and was approved by the Ethics Committee of FGV.

Findings: CHW vulnerability during the COVID-19 pandemic

The first COVID-19 case in Brazil was notified on the 26th of February 2020, almost two months after the first cluster of cases was identified in China. Jair Bolsonaro's government denied the severity of the crisis and failed to assume a coordination role. Brazil saw two Health Ministers leave the post during the pandemic and was without a Health Minister for 20 days after the second departed (when Bolsonaro appointed a member of military as interim minister). State and municipal governments assumed the responsibility for the response. While some regions adopted social distancing measures and others remained 'open for business', Bolsonaro acted as an agent of destabilization, going against the advice of health authorities, casting doubts upon official notification data and criticizing politicians adopting harsher measures against the virus.

Lack of political leadership at the federal level was an unprecedented challenge which decisively impacted upon the lives and work of CHWs. It led to disarray on the frontlines, with CHWs being particularly affected. The Health Ministry published the first regulation about how CHWs should work during the pandemic only on the 20th of March, that is, nearly one month after the first case (21). This regulation was vague and contradictory, leaving CHWs in doubt about their role and fearful for their own health. On the one hand, they were told to stop doing house visits and reduce or halt activities based on proximity and direct interaction with citizens. On the other hand, the regulation established that CHWs should play an active role, following up cases of infection while continuing to assist priority groups, such as patients with chronic diseases and pregnant women. No explanation was provided as to how CHWs should offer these services while keeping away from families. No national-level training was provided about the specific challenges of dealing with patients infected with COVID-19. To make the situation more complicated, the regulation stated that CHWs should use PPE – but no resources were provided by the federal government for its purchase. The nationwide survey of CHWs revealed that 80% did not receive any PPE until May, and 89% did not receive any training or official information explaining how to act during the pandemic.

As a result, 88% of CHWs said they did not feel supported by the federal government and 93% reported they did not feel prepared to face the crisis (22). Posting on Facebook, one CHW captured the prevailing mood:

> 'We are living in the middle of the chaos and we are alone. The government wants us to go to the streets in their name, but they do not care about us. They just want to be re-elected. But we are dying. People are dying. And they [the authorities] don't care.' ('Agentes de Saúde de Todo Brasil' Facebook group post, CHW)

Given the lack of training and PPE, CHWs were at great risk of becoming infected – at least 50 have died since the onset of the pandemic (23). The fear of acting as disease vectors also contributed to great stress among workers and put pressure on families. As one CHW reported on Facebook:

> 'I fear going back home and contaminating my family. I asked my daughter to leave home and stay with her father. I have not seen her for many weeks because I am exposed to risks and don't want to put anyone else at risk.' ('Agentes de Saúde de Todo Brasil' Facebook group post, CHW)

In what constituted a novel challenge, COVID-19 put into question a core condition and specificity of CHW work: that of proximity to the communities.

Given how the disease was transmitted, the interactive nature of CHW work became a risk for themselves and those in contact with them. This impacted disease surveillance and contact-tracing. With access to PPE, these tasks could only have been done in part, in open spaces or helping teams in health units. Nonetheless, the necessity of entering people's homes – most of which are small and poorly ventilated – meant that these tasks were hazardous even for those few CHWs who had access to PPE.

COVID-19 also exacerbated the gender-based vulnerability of Brazilian CHWs. Women have borne the brunt of the pandemic: in the economic sense since they generally earn and save less; in its health implications given the reallocation of resources away from women's health; in the increase in unpaid care work and gender-based violence (24). Brazilian CHWs, overwhelmingly women, were overburdened to unprecedented levels. They had to deal with COVID-19 responsibilities in addition to their regular tasks. They were prevented from working from home or having flexible working hours, in a situation of school closures which has meant that many had nowhere to leave their children.

Other long-standing vulnerabilities of CHWs were exacerbated. The job precarity of many CHWs means that they are vulnerable to employer demands that put them at risk. During the pandemic, as confirmed in Facebook discussions, many CHWs were forced to work without PPE in very risky environments. The union of the city of São Paulo received reports of CHWs in risk groups – like pregnant women, elderly and with chronic illnesses – who were forced to continue their work under threat of being sacked. Posting on Facebook, a CHW reported on these pressures, revealing how they are highly gendered:

> 'I am pregnant and the municipality said I have to keep working. However, my priority now is my baby and I am terrified of the disease. I cannot work like this. (...) Fear is dominating everything. Only God can save us now.' ('Agentes de Saúde de Todo Brasil' Facebook group post, CHW)

The pandemic also exacerbated pressures upon the already-meagre salary of CHWs. In May 2020, in response to a mounting economic crisis, the government decreed a salary freeze for all public servants. Subsequently, an exemption to health professionals was approved by Congress, which also forced the government to pay an increment to their salary during the pandemic. CHWs found themselves outside the remit of this exemption. Even though they are an intrinsic part of primary healthcare teams in the SUS, CHWs are not recognized as a professional category, due in part to the absence of technical training as a prerequisite for appointment. As a result, CHWs do not have the rights and guarantees of other health professionals like doctors, nurses or nursing technicians. The ambiguity surrounding the profession of CHW meant that during the pandemic hundreds of thousands of CHWs saw their wages frozen and were prevented from receiving a salary increment to reward increased work and risk.

Findings: CHW resistance during the COVID-19 pandemic

Despite their vulnerability, Brazilian CHWs can exercise considerable power. This ability stems from the discretion enabled by the health system, which relies on the capacity of frontline workers to adapt, improvise and make decisions in a context of informality and resource scarcity (25). While COVID-19 exacerbated the vulnerabilities of CHWs and brought about new ones, it also provided a space for CHWs to push back against the neglect and failings of the federal government. Even in a situation of great vulnerability, CHWs exercised their agency and capacity to undertake strategic action. Multiple forms of CHW resistance were visible.

CHW resistance was spearheaded by state unions and their federation, CONACS. Relying on social media, these organizations sought to reinforce a collective sense of resistance. Weekly webinars were organized with the president of CONACS, Ilda Correia, and with leaders of state-level unions and politicians – one example of the latter was Henrique Mandetta, who had recently left the post of Health Minister after disagreements with Bolsonaro over the pandemic response. These webinars focused on political strategies to deal with the crisis, and how to protect CHWs from risks. Correia also recorded videos aimed at CHWs, explaining the strategies used by the union and the rights of CHWs during the pandemic. Some of these videos had more than 27,000 viewings.

In the context of a nationwide struggle against the wage freeze and the denial of a salary increment during a pandemic, CHWs activated contacts in Congress and lobbied (unsuccessfully) for their recognition as health professionals. They lobbied Mandetta when he was still Health Minister. They turned to the judicial branch with this demand, also supporting legal actions by individual CHWs claiming labour rights. Judicialization – resorting to courts to render effective rights that are enshrined in law but denied in practice – has been one of the strategies used by individuals and civil society organizations in Brazil, even if its long-term success is mixed (26).

National-level resistance had to face up with the fact that CHWs were not seen by authorities as central in the response to COVID-19, which was mainly focused on hospital-based care to those already infected. In this context, CHWs were unable to claim a more prominent role. Faced with mounting vulnerabilities among CHWs, unions had to change their position and curb expectations. The tone of the resistance of unions changed over time. In the beginning of March, Correia recorded videos mobilizing CHWs to 'fight' against the disease. She argued:

> Now we have to show how important we are. Families trust us, our recommendations are always the most correct and trusted. We have to show how strong we are. We are the frontline. We won other wars, and this is only one more. A good soldier does not run away from the fight.

Drawing on a war analogy, she advanced a narrative of heroism to motivate CHWs and ensure that they remained important during the pandemic. Some weeks later, after receiving news of many infections and casualties among CHWs, the federation changed tactic: CHWs should now stay away from the fight if they did not have adequate PPE. As a CHW posted on Facebook: 'there is no purpose in being a dead hero'.

CHW resistance evolved in a context of increasing localization of the response. Given that the federal government did not design a strategy for CHWs, municipalities and clinics had to decide what to do. Some municipalities decided to produce their own PPE for CHWs, thus ensuring that they could continue doing some of their core tasks, such as household visits. Other municipalities and clinics mobilized CHWs in vaccination campaigns, in the establishment of sanitary cordons, and even in activities of information and prevention, such as campaigns in local radios or using sound cars in neighbourhoods. In other places, simple telemedicine technologies were implemented to ensure that CHWs could remain in touch with families. Some municipalities deployed CHWs to call on new arrivals to the territory, checking whether they developed COVID-19 symptoms.

Even though municipalities normally failed to include CHWs in their decision-making, local and individual initiatives reveal some resilience of the lower levels of the health system, which were able to adapt and mobilize in response to the specificities of the territory, the demands of the population and the resources available. However, local-level resistance could only achieve so much. Attempts by some municipalities to implement sanitary cordons and stop people from entering territories were opposed by the judiciary because they interfered with the right to free circulation. As a result, checkpoints were reduced to providing information or checking for health conditions. Another example is contact-tracing, rendered impossible due to shortages of equipment and Internet connections.

The shortcomings of municipal-level adaptation help to explain why resistance also happened at the individual level. The day-to-day activity of CHWs is, like that of other frontline workers, characterized by a high level of discretion, which means that CHWs can develop 'pragmatic improvisations' to arrive at solutions and get things done (27). On Facebook, many CHWs reported on their own innovations, such as: creating PPE for themselves and their patients; organizing WhatsApp groups with patients to stay in touch when physically distant; or compiling lists of the most vulnerable patients in order to contact them periodically.

Discussion

The disarray on the COVID-19 frontlines added to a long-standing erosion of the status and working conditions of Brazilian CHWs. The pandemic exacerbated existing vulnerabilities pertaining to socioeconomic status and gender of CHWs. It also brought further pressures for CHWs, which

impacted their ability to carry out their work. COVID-19 transformed the interactive nature of their work, and their proximity with communities, into a possible site of disease transmission. Inexistent coordination and leadership, vague regulations, lack of adequate training, and insufficient PPE provision imperilled their lives and wellbeing and made their work extremely difficult. This is particularly true for health promotion activities, which require proximity with the population.

In addition to adjusting to the demands of the pandemic, CHWs attempted to push back against the failings and neglect of the federal government. Nonetheless, however well-intentioned, CHW efforts had a limited effect. Given their frontline role, CHWs became for many Brazilians the face of a failing system, and a potential spreader of the disease. In the balance of power between health professionals, CHWs lost ground *vis-à-vis* nursing technicians, for example, who were seen by the population as more effective since they were able to deliver biomedical solutions. The credibility of CHWs, and the specificity of this profession – its ability to establish relations of trust with the population – was put into question.

The difficulties faced by CHWs are partly a reflection of the precarious situation of the SUS. COVID-19 placed extraordinary pressure upon an already burdened public health system. CHWs are in many respects, the 'canary in the coal mine' of Brazilian public health (28). Their low salary and precarious working conditions reflect the perennial resource difficulties of the health system. Within the SUS, the CHW programme is in a situation of particular risk. It has long been the target of criticism from both the health and political sectors. The National Confederation of Municipalities, for example, has resisted increases in the salary floor for CHWs, arguing that they are not a cost-efficient solution to health problems given their lack of technical expertise and high numbers (29). The widespread idea of CHWs as an economic burden reveals a misunderstanding of the attributions of CHWs and of their long-term impact, as well as a reductionist view of health outcome as something that is only relevant if it can be measured or quantified – preferably in the short term. Recent revisions of the country's primary healthcare policies reveal the erosion of CHW responsibilities in the areas of health education and promotion. In 2016, the Ministry of Health issued a directive authorizing the replacement of CHWs with nursing technicians, who can also carry out more specialized tasks like taking blood pressure or the temperature of users – but who need not come from the communities and whose work is not oriented towards health promotion. Vector control agents, who are part of the health surveillance branch of the Health Ministry, are now taking up some of the core responsibilities of CHWs. The latter are gradually being reduced to tasks related to administration and data collection (30).

In recent years, unions have realized that the very existence of CHW as a profession is at risk. At the height of the pandemic, Ilda Correia argued that:

> This is the time for us to prove that our work is fundamental. If we are not in this frontline, we will be showing the government that they do not need us. And our struggle will be weakened.

The current dilemma facing CHWs and their representatives is that, in the pandemic situation, being on the frontlines is extremely dangerous and can prove counterproductive to their struggle by making them susceptible to being identified as carriers and spreaders of disease.

The vulnerability of CHWs during the COVID-19 pandemic epitomizes the increased fragility of health promotion – which in Brazil was originally conceived not simply as health education and disease prevention, but more broadly as community mobilization towards the alleviation of socioeconomic inequalities. As the pandemic became the priority, the country's resources were mobilized in a haphazard way towards dealing with the mounting number of cases. In the absence of central-level coordination, interventions became disjointed and, despite some local successes, the public health effort can be described as an attempt at damage control. In this context, health promotion quickly took the back seat in the concerns of policymakers, health authorities and even health professionals. During the pandemic, health promotion was restricted to attempts to convey simple messages to the population – 'wash your hands', 'wear a mask', 'stay home', among others – and even the success of this was impaired by the absence of an overarching strategy and coordination, and by the federal

government's repeated attempts to spread confusion about the benefits of masks and social distancing.

Meanwhile, more expansive understandings of health promotion fell by the wayside during the pandemic. Fundamental ideas in Brazil's health system like universality and integral care – that is, the principle that everyone, regardless of their income, should have access to a broad range of services, from health promotion and education to curative medicine and rehabilitation – are being lost. In Brazil's public health landscape, health promotion has increasingly been relegated to the background, while all expectations and resources are directed towards technical and pharmacological fixes. The ongoing defunding and privatization of the SUS discredits health promotion and other CHW activities that are not easily quantifiable and measurable, and whose results are long term. Biomedical and hospital-based understandings, privileging evidence-based curative medicine, are gaining ground. The pandemic has contributed to this trajectory.

The Brazilian case holds valuable lessons for other low and middle-income countries relying on CHWs for health promotion. A cadre of precarious frontline workers may be a short-term solution for resource-poor health systems. However, failing to provide adequate recognition and working conditions for these workers undermines the long-term stability in policy implementation that is required for the success of health promotion activities, particularly those that follow an expansive understanding and look to address socioeconomic inequalities. Furthermore, as the Brazilian case shows, the pandemic has fundamentally questioned the interactive nature and the proximity with vulnerable users that are at the heart of many CHW-driven health promotion activities. Even when the pandemic is over, rebuilding trust between CHWs and the population will take some time. This should not be used as an excuse for dispensing with CHW programmes, but rather as another argument for enhanced training and better resourcing that can ensure the safety, wellbeing, stability and motivation of these important workers.

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Original Article

Psychological response to the COVID-19 pandemic in Canada: main stressors and assets

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Abstract:

Background: The COVID-19 crisis has unique features that increase the sense of fear, and comes with additional stressors (e.g., confusion, discrimination, quarantine), which can lead to adverse psychological responses. There is however limited understanding of differences between sociocultural contexts in psychological response to pandemics and other disasters.

Objective: To examine how Canadians in different provinces, and with different governance modes and sociocultural contexts, understand and react to the COVID-19 pandemic.

Methods: A web-based survey was conducted from April 8–11, 2020, among a representative sample of 600 Canadian adults from two different contexts (n=300 in Quebec, the French part of Canada, and n=300 elsewhere in Canada). Two psychological outcomes were assessed: probable post-traumatic stress disorder (PTSD), and probable generalized anxiety disorder (GAD). The roles of various stressors (i.e., threat perceived for oneself or family/friends, quarantine or isolation, financial losses, victims of stigma), assets (i.e., trust in authorities, information received, and compliance with directives) and sources of information used on these two outcomes were also examined. Chi-square tests were performed to examine differences in the distribution of probable PTSD and GAD according to these stressors and assets.

Results: Probable PTSD and GAD were observed in 25.5% and 25.4% of the respondents, respectively. These proportions were significantly lower in Quebec than elsewhere in Canada. Perceiving a high level of threat and being a victim of stigma were positively associated with probable PTSD and GAD (but not quarantine/isolation and financial losses). A high level of trust in authorities was the only asset associated with a lower risk of PTSD or GAD. Interestingly, this asset was more frequently reported in Quebec than elsewhere in Canada.

Conclusion: The COVID-19 pandemic represents a unique opportunity to evaluate the psychosocial impacts on various sociocultural groups and contexts, providing important lessons that could help respond to future disasters.

Keywords: COVID-19, pandemic, disaster, psychosocial impacts, post-traumatic stress, risk communication, communication strategy

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Background

Identified for the first time in China in December 2019, the coronavirus disease (COVID-19) was declared a pandemic on March 11, 2020, by the World Health Organization (WHO). COVID-19 rapidly spread globally. Since its first identification among humans, more than 3,091,489 deaths from over 145,834,362 million cases across 219 countries or territories have been reported as of April 23, 2021 (1).

Public health emergencies and disasters, whether naturally occurring or anthropogenic, often affect entire communities. By causing psychological stress, coupled with significant human and material losses and extended social and service disruption, disasters negatively affect the health and well-being of individuals and societies (2). Such traumatic events may result in a wide range of mental health disorders, post-traumatic stress disorder (PTSD) being the most commonly studied (3). A growing body of evidence demonstrates that the prevalence of anxiety, depression, sleep disorders, substance misuse problems, and somatic symptoms are increasing when communities are hit by a disaster (2–6).

As with any other type of natural disasters, the psychosocial risks arising from large-scale outbreaks need to be considered by public health organizations, in conjunction with the risk of infection. The COVID-19 pandemic has unique features that increase the sense of fear (e.g., being transmissible, imminent, invisible, ominously covered by the media) and comes with a number of additional stressors (e.g., mistrust, confusion, misinformation, discrimination (7)). While some fear can stimulate preventive behaviors, extreme fear may lead to adverse psychological responses (8). It thus comes as no surprise that, along with the first wave of the pandemic that has affected the world in the first half of 2020 (and the subsequent second and third wave in 2021), fear has spread as fast as the virus itself, if not faster. Several studies have reported that this fear has led to adverse mental health outcomes (9–11).

Emotional, sociocultural, political, and epidemiological factors all play a vital role in the individual response to stressors (12). For instance, risk information is not received and understood equally. A strengths-based approach, not only focusing on risk factors (or stressors) but also on protective factors (or assets) is important to better understand how mental health and well-being can buffer the adverse effects of psychological stressors (13). This type of research is urgently needed because promoting health and well-being through a salutogenic approach may be just as important as protecting health and safety in a disaster context (14). It has indeed been shown that fostering health assets may complement the usual public health response for people in unfavorable situations (15).

The media also plays a major role in shaping responses to disasters (especially those involving biological threats and risks of contagion). During pandemics, mainstream and social media discourses are often poorly informed by science. This may contribute to public misinformation and misunderstanding, which may fuel a sense of fear and foster a host of adverse psychological responses. There is limited understanding, however, of differences between sociocultural and political contexts in psychological responses to health information (or misinformation). When dealing with pandemics, the authorities' communication strategies are embedded in multilevel governance (from global to local), which adds another layer of complexity (16). Carrying out more '*real-world research*' is crucial to generate evidence relating to the psychosocial aspects involved during pandemics and how it is shaped by authorities and media discourses under various circumstances (i.e., in different groups or geographic locations (17–19)).

From the international to the Quebec/ Canadian context

Although the COVID-19 pandemic is global and affects more than 219 countries and territories, each country or region has its own epidemiological, demographic, sociocultural, economic, and political specificities, which modulate the psychological response of individuals and communities. In Canada, the COVID pandemic began on January 27, 2020, after an individual who had returned from Wuhan, Hubei, China, tested positive. In the early phases of the pandemic (until the end of February), the spread of the virus was considered '*under control*' by authorities. Until March, all cases were linked to recent travels. The first case of community transmission in Canada was confirmed in the beginning of March.

Even though confirmed cases have been reported in each Canadian province and territory, the province of Quebec (a predominantly French-speaking province), which counts a little less than a quarter of the Canadian population, had more than 50% of all confirmed cases and deaths related to COVID-19 by the end of its first wave of the pandemic (20). Various factors have been underlined to explain this particular epidemiological situation: an aging population living in long-term care facilities, a week of school vacation earlier than elsewhere in the country, and behaviors being potentially less respectful of public health standards due to cultural reasons. Notwithstanding these particularities, the Government of Quebec distinguished itself through its social and political response to the pandemic. Among others, its communication strategy, described by many as being transparent and coherent, while at the same time being reassuring, supportive, and compassionate, was particularly appreciated by Quebecers (21).

Introduction to the pilot survey

This study looks at how populations with different governance modes and sociocultural contexts understand and react to the COVID-19 pandemic. This is done through a pilot survey conducted among a representative sample of the population living in the province of Quebec and the rest of Canada (ROC). This study aims to 1) capture the psychological response and its associated stressors and assets in the midst of the first wave of the pandemic in Canada, and 2) compare psychological responses, stressors, and assets in Quebec versus the ROC.

Methods

Design

This study takes place within a broader research entitled '*The role of communication strategies and media discourse in shaping the psychological and behavioral response to the COVID-19 outbreak: an international comparative analysis*' funded by the Canadian Institutes of Health Research. This multidisciplinary and international research seeks to contribute to a better understanding of how the risk-related information is delivered by authorities and media, and how it is received, understood and used by the public (22). In order to do that, a mixed-method approach was used, including a repeated cross-sectional population-based survey conducted in several jurisdictions, a quantitative and qualitative discourse analysis of the news media and social media, and a network analysis (e.g., information disseminated by the WHO, distribution lists, reception and use of information) to assess how information flows and circulates across levels of governance.

A few weeks after receiving the grant, a questionnaire was built and the conduct of a pilot survey based in Canada was rapidly reviewed and approved by the Research Ethics Board of the CIUSSS de l'Estrie – CHUS. This pilot survey was performed from April 8–11, 2020, among a representative sample of 600 randomly recruited Canadian adults from two different political and sociocultural contexts ($n = 300$ in Quebec, and $n = 300$ in the ROC).

Recruitment

Any adults (18 years and older) living in Canada and able to answer a questionnaire online were eligible to participate. Recruitment was undertaken by a professional polling firm called Leger 360 (https://leger360.com/). This firm has built an online panel of 400,000 members and has the largest Quebec francophone panel. These members come from several sources (i.e., 50% are recruited randomly by the call center, 35% by invitation and affiliate programs, 5% through social media, 5% by offline recruitment, and 5% through partner programs and campaigns). Target recruitment was carried out to ensure the inclusion of hard-to-reach groups on the internet (e.g., ethnic minorities, young people, seniors) and therefore to increase population coverage and improve the quality of the sample provided. The database is actively managed as follows:

- Interviewers inviting respondents to join the panel, with over 30,000 new panel members recruited per year;
- More than 55,000 respondents per year participating in focus groups who are invited to join the panel;

- By referrals, social media, or to earn extra money, ambassadors can recruit new panel members each day, however each referral is filtered and analyzed;
- Conventional Google ads and website banners.

Participant management for the current study was aligned towards maximizing census representation. The optimal representativeness of the sample was backed by the use of software generating representative samples of the population (i.e., quotas sampling) and by weighting response rates based on age, sex, language, and region.

Data collection

The questionnaire built for the pilot phase of the survey was available (pre-tested and validated) in English and French. It contained closed-ended questions only and lasted an average of 10–15 minutes. Based on the Knowledge-Attitude-Practice (KAP) model (23), a wide range of aspects were explored, including risk perceptions and beliefs, positive and negative attitudes, and adaptive and maladaptive behaviors. Sociodemographic characteristics (e.g., age, sex, education level) were also assessed.

Outcomes

Two psychological outcomes were assessed, including probable PTSD and probable generalized anxiety disorder (GAD).

The Primary Care PTSD Screen for DSM-5 (PC-PTSD-5) is a 5-item scale designed for use in primary care settings (24). This scale was designed to identify individuals with probable PTSD. Respondents had to answer five yes/no questions about how the COVID-19 pandemic has affected them over the past month. Those who answered 'yes' to at least three of the five questions were considered as having a probable PTSD, based on preliminary results from validation studies suggesting that a cut-off point of three is optimally sensitive (24).

The GAD-7 is based on the diagnostic criteria for GAD described in DSM-IV. This questionnaire is designed for use by health professionals but has also been used in several population-based studies. A composite score ranging between 0 and 21 is possible. A score of 10 or greater indicates a probable GAD that needs to be further evaluated by a clinician (25–27). Using the threshold score of 10, the GAD-7 has a sensitivity of 89% and a specificity of 82% for GAD (28).

Predictors (stressors and assets)

Various factors that may have influenced the psychological response to the pandemic were considered, particularly those related to information accessibility and the different channels of communication (e.g., traditional, digital, and interpersonal) used and valued (29). The following variables were specifically examined:

- The perception of the level of threat posed by COVID-19 to oneself, and family and friends (very low/low/moderate vs. high/very high).
- Being a victim of stigma or discrimination due to COVID-19 (yes/no).
- Having experienced financial losses of any kind due to COVID-19 (yes/no).
- Having experienced home quarantine or isolation, mandatory or voluntary (yes/no).
- Level of information about the coronavirus, with a scale ranging from 1 to 10 (high [9–10] vs. lower levels [0–8]).
- Level of trust in public authorities, with a scale ranging from 1 to 10 (high [9–10] vs. lower levels [0–8]).
- Level of compliance with the directives given by the authorities, with a scale ranging from 1 to 10 (high [9–10] vs. lower levels [0–8]).

In addition to these stressors and assets, the sources used to get informed about COVID-19 were examined, some of them hypothesized to act as psychological stressors (e.g., social networks) and others as assets (e.g., authorities). Respondents had to report the frequency of use, which was subsequently dichotomized as 'a lot/somewhat' vs. 'not much/not at all', for each of the following sources of information: WHO; Canadian federal government; provincial government; public health authorities; health professionals; news media (television, radio, newspapers); friends, family, and co-workers; social networks; the Internet.

Table 1. Distribution of stressors, assets, and sources of information in Quebec versus in the rest of Canada (ROC).

	Quebec n = 300 (%)	*ROC n = 300 (%)*	*Total n = 600 (%)*
Stressors			
Threat to oneself perceived as high	25.7	23.0	23.6
Threat to family or friends perceived as high	27.9	25.6	26.1
Home quarantine or isolation	88.6*	72.8*	76.5
Financial losses	53.2	61.0	59.1
Victim of stigma or discrimination	7.5	13.2	11.9
Assets			
High level of information	44.0	39.6	40.6
High level of trust in public authorities	49.6*	26.8*	32.2
High level of compliance with the directives	77.3*	64.3*	67.4
Sources of information used			
WHO	48.2*	66.8*	62.4
Federal government	65.0*	87.1*	81.9
Provincial government	94.3*	88.2*	89.6
Public health authorities	83.3	84.8	84.5
Health professionals	67.4*	78.8*	76.1
Media (television)	80.0*	69.4*	71.9
Media (radio)	40.9	43.6	42.9
Media (newspapers)	38.0	34.1	35.0
Friends, family, or co-workers	42.8	50.0	48.3
Social networks	45.0*	34.7*	37.2
Internet	70.7	65.4	66.7

*p values from the Chi-square tests < 0.05.

Data analysis

Data were weighted for age, sex, and regions in each province to ensure the representativeness of the sample. Statistical analyses were performed (chi-square tests) to compare various key variables (i.e., psychological outcomes, stressors, assets) between subgroups (i.e., Quebec vs. the ROC, men vs. women, young vs. older adults, low vs. higher education level) and to assess the relationships between the set of stressors and assets, and the psychological outcomes under investigation.

Results

The distribution of stressors, assets, and sources of information in Quebec versus elsewhere in Canada are displayed in Table 1. Overall, these data suggest that during the first wave of the pandemic in Canada, home quarantine or isolation, as well as financial losses, were the norm for most Canadians, either in or outside the province of Quebec, even though Quebecers appeared more likely to apply home isolation measures (88.6% vs. 72.8%, $p < 0.05$). One of the most salient differences observed between the province of Quebec and the ROC regards the level of trust in authorities, with about half of Quebecers reporting a very high degree of confidence in public authorities (49.6%), compared to 26.8% for those in the ROC. More Quebecers felt they have the information they need to understand the coronavirus fully (83.7%) compared to respondents from the rest of the country (60.8%). They were also more inclined to cite provincial government and television as a regular source of information, while more Canadians outside this province privileged the federal government to get informed about the coronavirus.

Overall, probable PTSD and GAD were observed in 25.5% and 25.4% of the Canadian respondents, respectively. However, probable post-traumatic stress related to the pandemic was more frequent outside

Table 2. Psychological outcomes according to sociodemographic characteristics.

Sociodemographic characteristics	*Probable PTSD (%)*	*Possible GAD (%)*
Province		
Quebec	18.8*	14.2*
Rest of Canada	27.5*	28.8*
Gender		
Women	30.7*	26.6
Men	19.8*	24.1
Age		
18–44 years	31.8*	32.0*
45–64 years	23.8*	22.1*
65 years or more	16.8*	18.3*
Highest level of education		
High school or less	25.2	21.3*
College	28.9	31.3*
University	19.6	21.3*
Total	25.5	25.4

*p values from the Chi-square tests < 0.05.

Quebec (27.5%) than inside the province (18.8%). The same is true for generalized anxiety (28.8% outside Quebec versus 14.2% inside the province). Noticeable differences in psychological responses were also found between men and women, and according to age groups, with men and older people being less likely to suffer from post-traumatic stress related to the pandemic and generalized anxiety than women and younger adults, respectively (Table 2).

As shown in Table 3, psychological stressors that were significantly associated with either probable PTSD or GAD relate to stigma and to the fact that the pandemic is perceived as a high threat to individuals and loved ones (family or friends) while, surprisingly, this was not the case for home quarantine/isolation and financial losses. On the opposite side, respondents who were more trustful of authorities seemed less likely to report PTSD and GAD symptoms than others. In addition, probable PTSD and GAD were found to be statistically more frequent among respondents who reported regularly using the WHO or federal government as a source of information, while this was not the case for sources of information at the provincial government level (Table 3). Except for the provincial government, most sources of information, including the news and social media, were associated with a greater risk of probable PTSD or GAD.

Discussion

By looking at the psychosocial impacts of COVID-19, this Canadian survey has provided clear initial results: less than a month after being declared a pandemic, COVID-19 was wreaking havoc in Canada, with one quarter of respondents showing significant symptoms of post-traumatic stress and generalized anxiety. Similar findings have been observed in another national survey conducted in Canada from May 8–12, 2020 (30), where 25.5% of respondents indicated moderate to severe anxiety levels using the GAD-7 scale. This survey also found, just as we did, that women and younger adults were more likely to feel anxiety during the pandemic.

According to the 'pre-pandemic' literature, it is estimated that 2.5% to 5.0% of adults generally present symptoms compatible with generalized anxiety (26, 31, 32). It should, however, be noted that different scales have been used to measure GAD and that most studies were conducted many years before the pandemic. Based on our findings, the current level of GAD in Canada (25.4%) is considerably higher than before the pandemic. As a comparison, the estimated prevalence of GAD among Canadian adults during wave 1 of the pandemic was similar, if not higher, to that observed in Fort McMurray six months after the devastating

Table 3. Psychological outcomes according to stressors, assets, and sources of information to get informed about COVID-19.

	Probable PTSD (%)		*Probable GAD (%)*	
	Presence of stressor (%)	*Absence of stressor (%)*	*Presence of stressor (%)*	*Absence of stressor (%)*
Threat to oneself perceived as high	34.8*	22.9*	43.6*	19.7*
Threat to family or friends perceived as high	33.3*	22.9*	37.7*	21.2*
Home quarantine or isolation	24.8	27.3	26.9	20.3
Financial losses	27.0	24.3	28.4	22.6
Victim of stigma or discrimination	46.8*	22.2*	43.5*	23.2*
	Presence of asset (%)	*Absence of asset (%)*	*Presence of asset (%)*	*Absence of asset (%)*
High level of information	26.2	25.0	23.9	26.3
High level of trust in public authorities	19.7*	28.4*	17.6*	29.2*
High level of compliance with the directives	28.9*	18.1*	23.8	28.6
	Source used (%)	*Source not used (%)*	*Source used (%)*	*Source not used (%)*
WHO	29.6*	18.6*	27.0	18.5
Federal government	28.1*	13.4*	26.8	19.3
Provincial government	26.3	18.2	23.9*	38.7*
Public health authorities	27.1*	16.3*	21.9	16.1
Health professionals	28.3*	16.0*	28.8*	15.6*
Media (television)	27.0	20.0	26.2	24.0
Media (radio)	30.7*	21.1*	31.0*	22.1*
Media (newspapers)	35.6*	20.2*	31.1*	22.8*
Friends, family, or co-workers	28.2	23.2	30.3*	21.1*
Social networks	30.3*	22.7*	30.1*	22.0*
Internet	27.7	20.9	28.2*	20.1*

*p values from the Chi-square tests < 0.05.

2016 wildfires, where the one-month prevalence of GAD, measured via the GAD-7, was 19.8% (33). International studies also showed that emotional distress and psychopathological disorders have exploded since the onset of the COVID-19 pandemic. In the United States, around one third of the population reported depression or anxiety symptoms since the beginning of the crisis (34). The main reasons advanced for this adverse psychological response are economic concerns, health and safety implications, and social distancing measures (34). Studies from Italy and Belgium found that lockdown delayed sleep timing, increased time spent in bed, and impaired sleep quality (35). A study in China also reported COVID-19-related increase in anxiety, especially among younger people (<25 years; 36).

The global crisis is clearly having an impact on wellness. In some places, however, people may be better protected psychologically. This seems to be the case in Quebec. Interestingly, this province was by far the most affected by the virus spread and presented the highest morbidity and mortality during the first wave. This suggests that the epidemiological situation of COVID-19 over a given territory is not the only factor that can trigger psychological problems. In this regard, findings emerging from this survey are very instructive on how information disseminated from the global, national, and sub-national levels, as well as how it is received and understood by the public from various

sociocultural contexts, may positively or negatively affect the psychological response to major health threats. A high level of trust in authorities was associated with a lower risk of probable PTSD or GAD. Since this asset was more frequently reported in Quebec than elsewhere in Canada, it suggests that the more favorable situation observed in Quebec (in terms of psychological response) may be partially explained by a greater trust in the information received, no matter the impacts of the pandemic in terms of number of cases and mortality rate. This should convince practitioners and decision-makers that fundamental and often underestimated assets are available at the population level and that mobilizing such assets may buffer the adverse effects of pandemic-related stressors on mental health. As a complement to their tremendous efforts to fight the biological threat posed by COVID-19, public health authorities should invest more in a salutogenic approach aimed at fostering assets that create health, in an attempt to restore balance in health promotion and protection.

Respondents in Quebec were also less likely to rely on the WHO or federal government (and more likely to rely on their provincial government) as their regular source of information, which may also explain some of the psychological differences observed between Quebec and the ROC. One possible explanation to support these findings would be that information not translated into the main spoken language (i.e., French), and not sufficiently tailored to the local culture, may fuel confusion, misunderstandings, and worries, while more accessible and contextualized information may promote a sense of security (37). Such '*personalized*' communication strategies (i.e., daily press conferences given by governmental and public health authorities at the provincial level) seemed to be very effective among people in this province.

Economic impacts following the COVID-19 pandemic varied widely and each province, economic sector, and population was affected in different ways, some even benefiting from the unusual situation (e.g., e-business, delivery, green tech, construction). The pandemic, causing notably a recession in Canada, is nonetheless an important potential source of stress and anxiety for Canadians. Being equally affected at the economic level compared with other provinces, Quebec presents, however, interesting economic data that, combined with our results showing that Quebecers had a greater confidence in public authorities, may help to alleviate the mental health impacts of the pandemic through the appearance of economic control, explaining our result that financial loss is less of a stressor for the province of Quebec (38).

Although informative on the potential factors that may influence psychological response in times of a pandemic, this study also has several limitations that must be underlined. First, its cross-sectional nature precludes the inference of causality between stressors/assets and psychological outcomes. Second, the way data were collected (through an online questionnaire) may have somewhat impaired the representativeness of the sample, with adults who cannot read and those who are less comfortable using a computer being potentially underrepresented. Finally, our study is based on self-reported measures which may be subject to information bias. While the GAD symptoms were assessed using a previously validated scale with good psychometric properties, PTSD symptoms were measured via a newer scale that should be further validated. In the same vein, most measures related to information accessibility and the different channels of communication used and valued were developed by our research team for the current study.

Conclusion

These early findings strongly suggest that the pandemic has had a significant psychological impact on Canadians. It raises how multilevel communication strategies are key during a health emergency and how information disseminated in media and other networks impact health and well-being. Refining our understanding of how various groups of the population perceive risks and react to them is not only vital to improve risk communication strategies, but also to mobilize assets within communities in order to tailor public health action during and after pandemics (or other disasters). This is especially important as actors from multiple sectors and at multiple levels need to develop a common vision and combine their efforts in finding solutions to minimize health burdens caused by these catastrophic events.

It will be crucial to monitor how psychological responses change over time and to adapt available support accordingly. This unique survey, leveraging on

an interdisciplinary approach, was the first of a series of three population-based surveys to be conducted in different countries (22). With larger samples from Canada and other countries, our future international surveys will not only allow monitoring of trends in the psychosocial impacts of the pandemic, but also comparison of these outcomes across countries with different sociopolitical and institutional backgrounds.

Declaration of conflicting interests

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Early perception, behavior, knowledge, and preventive practices related to COVID-19 among Palestinians

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Abstract: It is necessary to understand early perception, behavior, and knowledge of coronavirus disease 2019 (COVID-19) and preventive practices in relation to suggested policies and information accessible to the Palestinian population during the early stages of the pandemic. The aim of this research is to contribute to this understanding for the purpose of affecting future practical preventive policies that can be implemented and adapted in Palestine in order to shape a new reflective practices model to face any future epidemic crisis of any type. A cross-sectional design was used to conduct the study over 3 weeks in April 2020 and an online survey was disseminated in all areas of Palestine. A total of 1040 responses were collected from persons who were over 18 years of age. A high level of knowledge related to COVID-19 was found, including symptoms and characteristics of the virus, prevention practices, and at-risk groups. Respondents believe that they are more susceptible to influenza than COVID-19 and more likely to be infected by the influenza virus than the COVID-19 virus but expect that infection of influenza would be less severe than infection of COVID-19. Respondents were more inclined to find COVID-19 worrying and stressful than they were to find it fear-inducing. Around two-thirds of respondents believe that different types of COVID-19-related conspiracy theories are true to some degree. Going forward, it is crucial and essential to provide basic awareness among large populations around diseases, which can contribute to positively influencing people's knowledge and attitudes and their perception toward such diseases and combat conspiracy theories.

Keywords: communicable disease, global health/globalization, health promotion, healthy cities/healthy communities, public health

Background

Public health and global economy are obviously influenced and challenged by the coronavirus disease 2019 (COVID-19) pandemic. On 5 March 2020, the first confirmed cases in Palestine were detected and as of 10 October, Palestine had 44,210 confirmed cases distributed over 11 governorates and 381 reported deaths (1). Palestine required residents to self-quarantine as a national preventative measure to mitigate the spread of the disease until early June, after which restrictions on movement and business were eased (2).

Palestine has 5.1 million inhabitants, 3.05 residing in the West Bank and 2.05 in the Gaza Strip (3); 70.6% of the population use the internet, of which 84.2% with mobile phones, and 60.1% of the population are active social media users (4).

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Regardless of the government's recognition of the importance of public health during COVID-19 pandemic in terms of care, quarantine, and treatment centres, there is a need to strengthen community awareness and practices to prevent the spread of the virus in Palestine.The COVID-19 crisis needs a significant behavior change and puts psychological stress on individuals (5). The COVID-19 outbreak in Palestine rendered it necessary to understand early perception, behavior, and knowledge of COVID-19 and preventive practices in relation to suggested policies and information accessible to the Palestinian population during the early stages of the pandemic.

The aim of this research is to contribute to this understanding for the purpose of affecting future practical preventive policies that can be implemented and adapted in Palestine in order to shape a new reflective practices model to face any future epidemic crisis of any type.

Methods

Design, setting, and sample

Data was collected through an adapted survey that followed the World Health Organization (WHO) protocol (5). A cross-sectional design was used to conduct the study over 3 weeks in April 2020 and the survey was disseminated in all areas of Palestine and filled out online using Google Forms. A total of 1040 responses were collected from persons who were over 18 years of age and answered all the questions. Sample size calculations taking power into account indicated that the sample size used in the study (1040) is larger than the sample size required to achieve power of $\geqslant 80\%$ ($n = 787$, assuming $p = 0.5$, 95% confidence interval (CI), and precision ± 0.05 for proportion).

Data collection tool

The tool used was developed and structured by the WHO regional office in Europe (6), from whom approval was obtained for its use. The researchers translated the tool into Arabic. The tool was piloted on 10 persons from various areas to ensure national validation in Arabic, and modifications were made accordingly. The persons who agreed to participate completed a self-reported questionnaire that covered the following areas of study: socio-demographic characteristics (age, gender, location of residence, type of locality, educational level, and occupation); smoking status and whether having any chronic diseases; knowledge perceptions; prevention practices; perceived probability, susceptibility and severity of infection; agreement with policies; trust in different sources of information; and panic behaviors. Reliability was assessed using Chronback's alpha internal-consistency correlation measure (values ranged from 0.65 to 0.92). The WHO protocol was translated into Arabic by a group of seven multidisciplinary researchers including one language expert. The translation was reverse translated twice into the original language to ensure the quality and check for cultural and language bias.

Data analysis

The data were analyzed using the Statistical Package for Social Sciences (SPSS) software v.21.0. Basic descriptive statistics (averages and frequencies) and bar charts with error bars were obtained. To test differences among levels of demographic and other categorical variables in mean scores of variables measured using the Likert scale, a multi-way analysis of variance (ANOVA) was performed. Paired *t* tests were used to investigate the existence of significant differences in mean scores of probability, susceptibility, and severity of infection between COVID-19 and seasonal influenza. Significance was declared when the *p* value was less than 0.05 ($p < 0.05$).

Ethical considerations

The study instrument and survey administration protocol were approved by the Institutional Review Board (IRB) of An-Najah National University (approval number: Med1/4/20), and previously approved by the WHO Regional Office for Europe. Furthermore, a consent form was enclosed and signed by each participant at the beginning of the questionnaire.

Results

Demographic characteristics

In the current study, more than half of the participants were female (57.7%, $n = 601$) and 42.3% ($n = 440$) were male; 61.2% ($n = 637$) of the

participants were aged between 18 and 30 years, while only 22 respondents (2.1%) were older than 60 years old. The majority of the respondents (61.0%, $n=635$) were from the northern region of Palestine, and approximately 10% of respondents were from each of the other areas: center, south, the Gaza Strip, and East Jerusalem (9.9% ($n=103$), 9.6% ($n=100$), 9.6% ($n=98$), and 10.1% ($n=105$), respectively). Almost half of the respondents were from an urban locality (55.0%, $n=573$), 41.8% ($n=435$) were from a rural locality, and 3.2% ($n=33$) were from a refugee camp. Approximately one-fourth of respondents had not completed undergraduate education (25.9%, $n=270$), while more than half of the participants hold a BA (47.0%, $n=489$), 17.8% ($n=185$) have a Master's degree, and 9.3% ($n=97$) have a PhD or specialized degree. The majority (87.3%, $n=909$) of participants reported having no chronic disease, and 23.1% ($n=240$) were smokers.

Knowledge

Survey respondents were asked to rate their level of knowledge about COVID-19. Scores were measured on a scale from 1 (very poor knowledge) to 5 (very good knowledge). No significant differences were found among gender, region or type of locality ($p>0.05$); 51.8% ($n=539$) rated their knowledge level on COVID-19 in general as very good or good, and 72.3% ($n=753$) rated their knowledge on how to prevent the spread of COVID-19 as very good or good.

The vast majority of the respondents were aware of the COVID-19 outbreak (97.3%, $n=1013$). Knowledge of at-risk groups was generally of a high level, as the majority of respondents identified people with serious chronic illnesses as at-risk groups (94.3% ($n=982$) identified people with asthma, 97.8% ($n=1018$) identified people with lung diseases, 84.6% ($n=881$) identified people with chronic diabetes, and 94.9% ($n=988$) identified people with heart diseases), and the majority of respondents identified the elderly as an at-risk group (96.0%, $n=999$).

The vast majority of respondents correctly identified fever (94.0%, $n=979$), shortness of breath (97.9%, $n=1019$), and cough (91.9%, $n=957$) as symptoms of COVID-19 infection. Fewer respondents, but still a majority, correctly identified fatigue (86.7%, $n=903$), headaches (79.3%, $n=826$), muscle or body aches (75.9%, $n=790$), and sore throat (74.0%, $n=770$) as symptoms of COVID-19, and only 55.4% ($n=577$) knew that diarrhea is a symptom of COVID-19 infection. Only 45.0% ($n=468$) of respondents knew that a runny or stuffy nose is not a symptom directly associated with COVID-19 infection.

The majority (92.8%, $n=966$) of respondents correctly responded that there is not a drug for the treatment of COVID-19 or a vaccine for COVID-19; 92.0% ($n=958$) knew that COVID-19 is transmissible via droplets through coughing, sneezing, or intimate contact. A total of 95.6% ($n=995$) correctly reported that the incubation period is up to 14 days, and 77.4% ($n=806$) knew that after a person has recovered from COVID-19 that he/she is not necessarily immune to the virus.

Respondents were asked in which areas they feel they need more information, and the most commonly chosen topics were more information about scientific progress in development of a treatment for COVID-19 (95.4%, $n=993$) and development of a vaccine (95.2%, $n=991$). Respondents were then asked which of a list of practices are effective in preventing COVID-19 infection as presented in Table 1.

When participants were asked how they view washing hands with water and soap for 20 s as a measure of prevention of infection with COVID-19, almost three in four respondents viewed it as convenient to very easy to do (71.3%, $n=742$).

Perceptions

Participants were asked to rate their level of trust in different sources of information concerning COVID-19 as well as different groups and organizations in their management of the COVID-19 crisis. Scores were measured on a scale from 1 (very little trust) to 6 (a great deal of trust). Figure 1 presents the distribution of responses related to trust in information channels and Figure 2 presents the distribution of responses related to trust in groups and institutions to handle the crisis.

Probability, susceptibility, and severity of COVID-19 and seasonal flu

Respondents were asked to evaluate their perceptions of susceptibility and severity of COVID-19.

Table 1. Prevention measure practices reported by general Palestinian public taken to prevent COVID-19 infection.

	N (%)		
Item	*Yes*	*No*	*Don't know*
Hand washing for 20 s	1016 (97.6)	17 (1.6)	8 (0.8)
Avoiding touching your eyes, nose, and mouth with unwashed hands	994 (95.4)	37 (3.6)	10 (1.0)
Use of disinfectants to clean hands when soap and water is not available for washing hands	1015 (97.5)	16 (1.5)	10 (1.0)
Staying home when you are sick or when you have a cold	1014 (97.4)	16 (1.5)	11 (1.1)
Not travelling abroad	1028 (98.7)	6 (0.6)	7 (0.7)
Herbal supplements	647 (62.1)	241 (23.2)	153 (14.7)
Taking food supplements	780 (74.9)	164 (15.8)	97 (9.3)
Covering your mouth when you cough	1033 (99.2)	5 (0.5)	3 (0.3)
Ensuring a balanced diet	842 (80.9)	126 (12.1)	73 (7.0)
Avoiding close contact with someone who is infected	1031 (99.0)	4 (0.4)	6 (0.6)
Using caution when opening mail	924 (88.7)	78 (7.5)	39 (3.7)
Avoiding eating meat	129 (12.4)	782 (75.1)	130 (12.5)
Getting the flu shot	255 (24.5)	607 (58.3)	179 (17.2)
Exercising regularly	731 (70.2)	226 (21.7)	84 (8.1)
Wearing a face mask	799 (76.7)	210 (20.2)	32 (3.1)
Avoiding places where many people gather	1026 (98.5)	11 (1.1)	4 (0.4)
Using antibiotics	265 (25.4)	641 (61.6)	135 (13.0)
Drinking ginger tea	454 (43.6)	393 (37.8)	194 (18.6)
Prayer	798 (76.7)	172 (16.5)	71 (6.8)
Social distancing	982 (94.3)	44 (4.2)	15 (1.4)
Self-quarantine	997 (95.7)	36 (3.5)	8 (0.8)

Scores were measured on a scale from 1 (not probable, not severe, or not at all susceptible) to 6 (very probable, very severe, or very susceptible). Respondents believe that they are more susceptible to influenza than COVID-19 (mean values of 4.05 ± 1.46 and 3.00 ± 1.50, respectively, $p < 0.001$) and more likely to be infected by the influenza virus than the COVID-19 virus (mean values of 3.70 ± 1.43 and 3.05 ± 1.42, respectively, $p < 0.001$) but expect that infection of influenza would be less severe than infection of COVID-19 (mean values of 2.96 ± 1.47 and 4.31 ± 1.33, respectively $p < 0.001$) (Table 2).

There were significant differences among variables of gender ($p = 0.005$), occupation ($p = 0.000$), region ($p = 0.006$), and chronic disease status ($p = 0.049$) in mean scores of probability of infection by COVID-19 (Table 3). Males had higher average scores than females, students had the lowest scores among all professions and residents of Gaza, Jerusalem, and the southern governorates of the West Bank had higher scores than residents of the central and northern governorates. Participants with chronic diseases had higher average probability scores than those who do not have chronic diseases.

There were significant differences among variables of gender ($p = 0.001$), age ($p = 0.045$), occupation ($p < 0.001$), region ($p = 0.002$), and chronic disease status ($p = 0.001$) in mean scores of susceptibility of infection. Males had higher average scores than females, participants less than 30 years old and those above 60 years old had lower average scores than participants between 30 and 60 years old. Residents of the northern and central governorates had lower scores than residents of the other governorates. Students had the lowest average susceptibility scores while housewives had the highest average scores. Participants with chronic diseases had higher average scores than those who do not have chronic diseases.

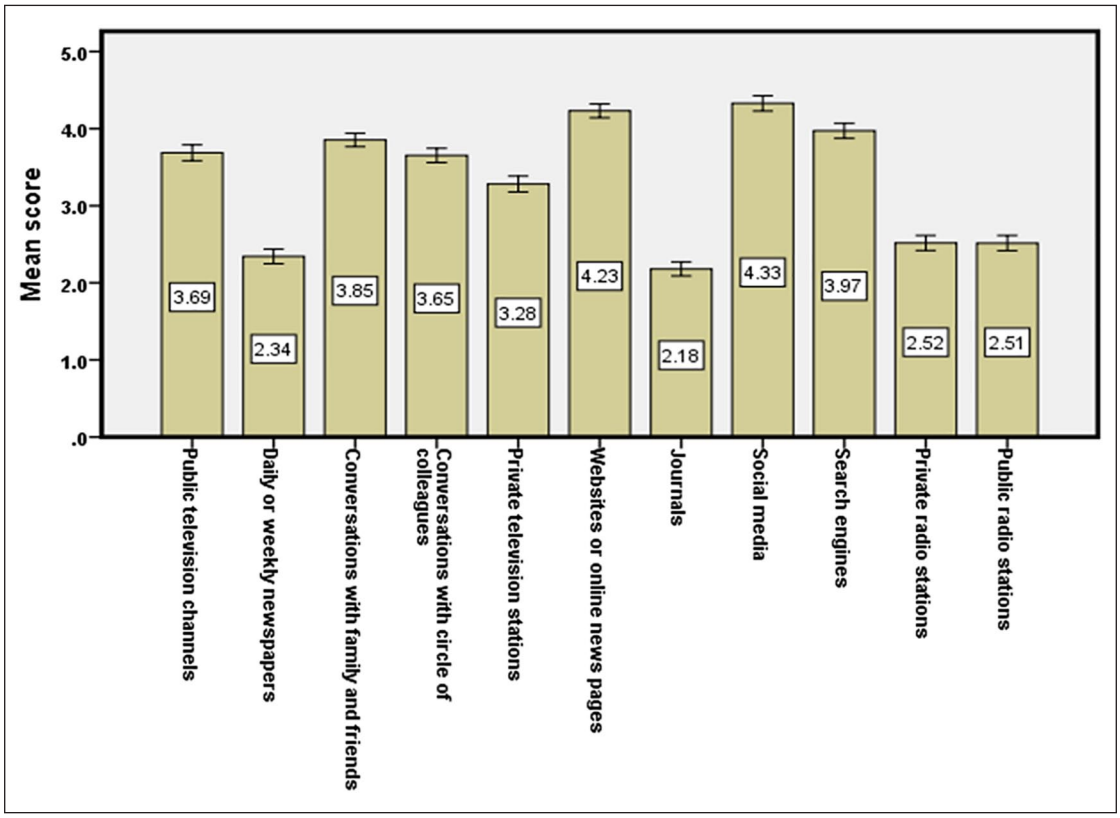

Figure 1. Average scores of degree of trust of respondents in different sources of information concerning the COVID-19 crisis. Scores were measured on a scale from 1 (very little trust) to 6 (great deal of trust). Error bars are 95% CI.
CI, confidence interval; COVID-19, coronavirus disease 2019.

There were significant differences among levels of region ($p = 0.008$), and chronic disease status ($p = 0.013$) in mean scores of perception of severity of infection. Participants living in the central governorates had the lowest average scores among all regions and those with chronic diseases had higher average scores than those who do not have chronic diseases.

Respondents were also asked to report their level of agreement with a number of policies and/or practices that the government and people could undertake in response to COVID-19 outbreaks (Table 4). Scores were measured on a scale from 1 (strongly disagree) to 6 (strongly agree).

Also, in regard to perceptions, as presented in Supplemental Table S1, respondents were asked how they feel about the coronavirus in a number of different aspects. Respondents were more inclined to find the coronavirus worrying and stressful than they were to find it fear-inducing and making them feel helpless. The vast majority of respondents (86.0%, $n = 895$) perceive the virus to be spreading fast.

In regards to conspiracy theories (Table 5), around two-thirds of respondents responded that different types of conspiracy theories are true at some level of frequency (often, usually, and certainly).

Practices

Respondents were asked a set of practice questions in relation to their movement, buying practices and social interactions (Supplemental Table S2). A total of 66.5% ($n = 692$) reported that they stayed away

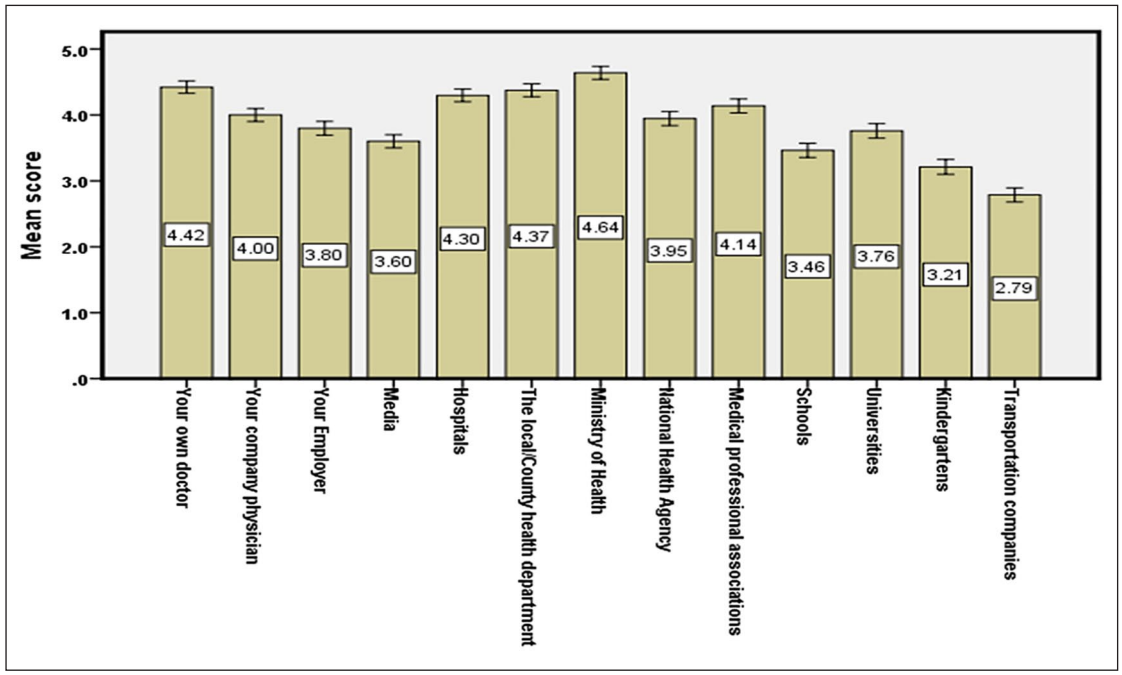

Figure 2. Average scores of degree of confidence of respondents in the ability of different individuals and organizations to handle the COVID-19 crisis. Scores were measured on a scale from 1 (very little confidence) to 6 (very high confidence). Error bars are 95% CI.
CI, confidence interval; COVID-19, coronavirus disease 2019.

Table 2. Mean scores (and standard deviations) of probability, susceptibility and severity of infection of COVID-19 and seasonal flu (Influenza) as declared by Palestinians participating in the coronavirus public survey.

Variable	*COVID-19*	*Seasonal flu (Influenza)*	*p value*
Probability of infection	3.00 (1.50)	4.05 (1.46)	<0.001
Susceptibility of infection	3.05 (1.42)	3.70 (1.43)	<0.001
Severity of infection	4.31 (1.33)	2.96 (1.47)	<0.001

from social events they had planned to attend; 60.8% ($n=633$) already cancelled holiday trips or plan to do so; 60.5% ($n=630$) avoided visiting family even when they did not have symptoms of disease; and 60.0% ($n=625$) reported that they had already canceled flights or train rides. Respondents reported having bought extra everyday items, food supplies, extra medications, and disinfectants on a large scale in lower proportions, with 28.2% ($n=294$), 31.6% ($n=329$), 31.8% ($n=331$), and 34.8% ($n=362$) doing so, respectively.

Lastly, respondents were asked about their worries in regards to threats of COVID-19 (Supplemental Table S3). Most of the respondents worry about losing someone they love, with an average score of 4.86; worry about the health system being overloaded had an average score of 4.84, while worry about economic recession had an average score of 4.83; and worry about society getting more egoistic had an average score of 4.79. The lowest worry reported was related to school closing, with an average score of 3.89.

Table 3. Mean scores (and standard deviations) of perceived probability, susceptibility and severity of infection of COVID-19 by socio-demographic factors, smoking, and chronic disease status of Palestinians participating in the coronavirus public survey.

	Mean score		
Factor	*Probability*	*Susceptibility*	*Severity*
Age			
18–30	2.84	2.93	4.35
31–45	3.26	3.22	4.12
46–60	3.29	3.32	4.46
>60	2.95	3.00	4.45
p value	0.203	0.045	0.122
Gender			
Males	3.21	3.25	4.20
Females	2.85	2.90	4.39
p value	0.005	0.001	0.072
Region			
North	2.87	2.94	4.35
Centre	2.93	2.92	3.91
South	3.41	3.38	4.32
Gaza strip	3.30	3.41	4.30
Jerusalem	3.17	3.19	4.49
p value	0.006	0.002	0.008
Type of locality			
Urban	3.01	3.00	4.32
Rural	3.00	3.11	4.30
Refugee camp	2.82	3.06	4.30
p value	0.327	0.049	0.872
Educational level			
Less than BA	2.77	2.86	4.30
BA	2.96	3.06	4.33
MA	3.36	3.29	4.36
PhD or specialization degree	3.19	3.08	4.16
p value	0.628	0.916	0.902
Occupation			
Student	2.67	2.74	4.33
Teacher	3.33	3.09	4.15
Employee	3.31	3.42	4.34
Housewife	3.22	3.78	4.42
Other	3.28	3.24	4.59
p value	<0.001	<0.001	0.337
Have a chronic disease?			
Yes	3.40	3.58	4.63
No	2.95	2.99	4.28
Don't know	3.14	2.90	3.95
p value	0.049	0.001	0.013
Smoker?			
Yes	3.21	3.19	4.17
No	2.94	3.00	4.36
p value	0.324	0.770	0.333

Table 4. Average scores of respondents' level of agreement with certain policies and practices.

Item	*N (%)*						*Average score (SD)*
	Strongly disagree	*Disagree*	*Somewhat disagree*	*Somewhat agree*	*Agree*	*Strongly agree*	
If a vaccine becomes available and is recommended for me, I would get it	46 (4.4)	37 (3.6)	81 (7.8)	140 (13.4)	213 (20.5)	524 (50.3)	4.93 (1.41)
People who have visited outbreak areas of COVID-19 should be quarantined	9 (0.9)	8 (0.8)	28 (2.7)	61 (5.9)	152 (14.6)	783 (75.2)	5.58 (0.89)
People who come from countries where there have been cases of coronavirus should be quarantined, whether they are sick or not	9 (0.9)	15 (1.4)	40 (3.8)	63 (6.1)	158 (15.2)	756 (72.6)	5.51 (0.97)
Tourists coming from countries where there have been cases of coronavirus should be quarantined.	7 (0.7)	9 (0.9)	32 (3.1)	35 (3.4)	115 (11.0)	843 (81.0)	5.66 (0.85)
In the event of an outbreak it's appropriate to avoid certain people on the basis of their country of origin.	235 (22.6)	75 (7.2)	108 (10.4)	107 (10.3)	126 (12.1)	390 (37.5)	3.95 (2.01)
The government should restrict personal liberty rights to combat COVID-19	60 (5.8)	30 (2.9)	90 (8.6)	159 (15.3)	203 (19.5)	499 (47.9)	4.84 (1.46)
The government should restrict the personal right to freely choose one's place of residence and stay to combat COVID-19	65 (6.2)	63 (6.1)	121 (11.6)	184 (17.7)	212 (20.4)	396 (38.0)	4.54 (1.54)
The government should restrict access to the Internet and social media to combat the spread of misinformation about COVID-19	183 (17.6)	93 (8.9)	125 (12.0)	150 (14.4)	150 (14.4)	340 (32.7)	3.97 (1.87)
Community facilities such as schools or kindergartens should be closed	23 (2.2)	21 (2.0)	45 (4.3)	60 (5.8)	151 (14.5)	741 (71.2)	5.42 (1.14)
Major events should be cancelled by the organizers	21 (2.0)	22 (2.1)	49 (4.7)	89 (8.5)	161 (15.5)	699 (67.1)	5.35 (1.16)
I think that the measures currently being taken are greatly exaggerated	445 (42.7)	209 (20.1)	96 (9.2)	96 (9.2)	83 (8.0)	112 (10.8)	2.52 (1.75)
Only affected community facilities such as schools or kindergartens should be closed	270 (25.9)	125 (12.0)	114 (11.0)	84 (8.1)	107 (10.3)	341 (32.8)	3.63 (2.05)
One should only be allowed to leave his house for professional, health or urgent reasons	36 (3.5)	43 (4.1)	62 (6.0)	86 (8.3)	222 (21.3)	592 (56.9)	5.10 (1.34)
In risk areas, major events should be cancelled by the organizers.	13 (1.2)	14 (1.3)	42 (4.0)	40 (3.8)	139 (13.4)	793 (76.2)	5.55 (0.90)
Palestinians living abroad should not be allowed to return to the country during the epidemic	142 (13.6)	97 (9.3)	141 (13.5)	138 (13.3)	111 (10.7)	412 (39.6)	4.17 (1.84)

Discussion

The current study assessed knowledge, practices, and perceptions of probability of infection, susceptibility to infection, and severity of infection as well as agreement with policies and trust in different sources of information related to the COVID-19 pandemic among general public in Palestine.

Conclusions from our study brought to light the high level of knowledge related to COVID-19 including symptoms and characteristics of the virus, prevention practices, and at-risk groups. This could give evidence to the effectiveness of the awareness campaigns immediately undertaken by the Ministry of Health and partners at the onset of the pandemic. Also, the respondents to the online survey were

Table 5. Conspiracy theory during COVID-19 outbreak.

	N (%)					
Item	*Certainly not true*	*Usually not true*	*Rarely not true*	*Often true*	*Usually true*	*Certainly true*
Many very important things happen in the world, which the public is never informed about.	36 (3.5)	44 (4.2)	101 (9.7)	201 (19.3)	231 (22.2)	428 (41.1)
Politicians usually do not tell us the true motives for their decisions.	35 (3.4)	59 (5.7)	101 (9.7)	192 (18.4)	219 (21.0)	435 (41.8)
Government agencies closely monitor all citizens.	64 (6.1)	101 (9.7)	203 (19.5)	273 (26.2)	190 (18.3)	210 (20.2)
Events which superficially seem to lack a connection are often the result of secret activities.	36 (3.5)	50 (4.8)	209 (20.1)	272 (26.1)	197 (18.9)	277 (26.6)
There are secret organizations that greatly influence political decisions.	48 (4.6)	75 (7.2)	199 (19.1)	208 (20.0)	197 (18.9)	314 (30.2)

internet users, which gives them access to the wealth of COVID-19 information that is available on the internet. Furthermore, 75% of the respondents had a high level of education, which can also explain the high levels of knowledge among the participants, despite the early stage of the pandemic at which the research was undertaken. Similar conclusions were found in studies implemented in Jordan by Khasawneh *et al*. (7) and by Zhong *et al*. (8) in China. Other studies found lower rates of knowledge related to COVID-19 (9–13).

Palestine took preventative actions, such as closure early in the pandemic, similar to Hong Kong (14) and other countries. More attention was given to mask wearing in public as a preventative measure at a later stage when restrictions were eased and quarantine was over. Indeed, wearing a mask in public has become mandated with a monetary fine issued to non-compliers. As such, it is understandable that, in our study, higher percentages of respondents chose social distancing and washing hands as preventative measures than mask wearing. We believe that citizen's knowledge about this preventative practice has increased since the time of data collection. This is similar to a study conducted by Roy *et al*. (15), which found that participants are willing to follow government guidelines on quarantine and social distancing, and others from Jordan, the United States (US), the United Kingdom (UK), and Malaysia reported lower percentages of respondents that consider wearing a mask to be an effective preventative measure (7,9,13,16). On the other hand, Zhong *et al*. (8) found that the vast majority of their Chinese respondents reported wearing face masks when going out. Such variances are related to the type of approaches and regulations each country has adapted to promote preventative practices.

Almost one-third of respondents in our study reported incorrectly that taking antibiotics is effective in preventing COVID-19. This is in congruence with the findings of Khasawneh *et al*. (7). Only half of respondents in our study correctly identified diarrhea as a symptom of COVID-19, which is similar to findings of a study of university student knowledge, attitude and practices (KAP) survey related to H1N1 (17).

The majority of the participants showed positive attitudes related to vaccination and reported that they would be vaccinated when a vaccine is available. This is contrary to a study conducted by Akan *et al*. (18) in Turkey related to pandemic influenza, which found that the vast majority of participants surveyed were unwilling to get vaccinated. It is anticipated that the major disturbances to everyday life and apparently higher mortality rate and spread of COVID-19 compared with influenza have emphatically influenced public eagerness to get vaccinated. Reuben *et al*. (19) also found low levels of acceptance of a future COVID-19 vaccination in Nigeria, which may be due to the timing of this study early in the pandemic in an area that had not yet experienced outbreaks.

Our study found generally high levels of belief in different variations of conspiracy, an issue which has become more pronounced only as the pandemic wears on and the general public normalizes the pandemic

situation and starts to look for explanations for its continuation other than epidemiological reasons.

Limitations

Considering the continuous and fast change of pandemic conditions, April 2020 as the period for data collection should be considered as a limitation for our study, specially that little information was available for the public. Another limitation of our study is the use of an online survey and the target group distribution without quota sampling by location, which was a necessary design considering the sudden epidemic crisis and the lockdown that prevented household surveying. The external validity was limited due to sample selection bias where the majority of respondents were from the Northern region.

Conclusion

Overall, the general Palestinian public showed high levels of knowledge, positive attitudes, and good precautionary practices related to COVID-19. Nevertheless, it is crucial and essential to provide basic awareness among large populations around diseases, which can contribute to positively influencing people's knowledge and attitudes, and their perception toward such diseases. It is also fundamental to teach personal distancing and respiratory hygiene to all citizens from all ages since a significant number are likely to be silent carriers. As the pandemic extends into the final quarter of 2020, it is now crucial to re-assess KAP and understand the general public's continued commitment to precautionary measures or lack thereof, and their view towards the reality and severity of the pandemic at this stage.

The findings of the study have implications for policymakers and educators, especially the influence of social media on public knowledge and perception of COVID-19. The government should utilize social media to provide accurate information and educate the public using scientific-based and accurate disseminated information to enhance knowledge about COVID.

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Supplemental material

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Original Article

Understanding the landscape and propagation of COVID-19 misinformation and its correction on Sina Weibo

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Abstract: The prevalence of health misinformation on social media could significantly influence individuals' health behaviors. To examine the prevalent topics, propagation, and correction of coronavirus disease 2019 (COVID-19) misinformation, automated content analyses were conducted for posts on Sina Weibo, which is China's largest microblogging site. In total, 177,816 posts related to COVID-19 misinformation during the COVID-19 outbreak in China were analyzed. The structural topic modeling identified 23 valid topics regarding COVID-19 misinformation and its correction, which were further categorized into three general themes. Sentiment analysis was conducted to generate positive and negative sentiment scores for each post. The zero-inflated Poisson model indicated that only the negative sentiment was a significant predictor of the number of comments ($\beta = 0.003$, $p < 0.001$) but not reposts. Furthermore, users are more prone to repost and comment on information regarding prevention/treatment (e.g., traditional Chinese medicine preventing COVID) as well as potential threats of COVID-19 (e.g., COVID-19 was defined as an epidemic by World Health Organization). Health education and promotion implications are discussed.

Keywords: COVID-19, misinformation, social media, structural topic modeling, sentiment analysis, retransmission, comments

Introduction

Misinformation, conceptualized as 'false and inaccurate information that is spread intentionally and unintentionally' (1), can be created easily and rapidly circulated on social networking sites (SNSs). Increasing scholarly attention has been paid to the health misinformation in public communication environments, which could influence individuals' health behaviors detrimentally (2). Health misinformation is particularly problematic in three ways. First, people, once exposed to misinformation, are prone to believe it, at least at the very beginning. Second, it is difficult to correct misinformation, which is a resource-intensive effort (3). Third, even after the correction of misinformation is accepted, the misinformation may continue to shape attitudes and behaviors, also known as 'belief echoes' (3,4). Given this, understanding the content, propagation, and correction of misinformation is imperative for health education and promotion, especially during public health crises, such as the novel coronavirus disease 2019 (COVID-19). In response to health crises, individuals demonstrate higher levels of health information insufficiency and acquisition, and therefore are more susceptible to misinformation through health information seeking and scanning behaviors (5). Recent studies documented that exposure to COVID-19 misinformation leads to less systematic processing of COVID-19 information

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(6), reduced protective behaviors (e.g., vaccination) (7), and increased erroneous practices (8), which severely hinder public health promotion.

The growing popularity of SNSs, which catalyzes the rapid and wide propagation of misinformation, makes correcting misinformation more complex and challenging. Due to the lack of professional gatekeeping, SNSs are severely afflicted by misinformation, which can barely be blocked or flagged in (re)transmission on SNSs (1,9). With SNSs as major platforms for health information acquisition (10,11), when facing a public health crisis, individuals reported increased information seeking and scanning activities on SNSs for health information (12). Such health information, containing the misinformation individuals acquire from SNSs, could exert a significant influence not only on their cognitions and attitudes towards the health issue, but also on subsequent protective behaviors they adopt, which has drawn scholarly attention (2,13).

COVID-19, an infectious disease caused by a novel virus, broke out in Wuhan, China, in December 2019. It has infected over 80,000, and claimed over 4,600 lives in China alone (14). The World Health Organization (WHO) declared the COVID-19 outbreak a pandemic on 11 March 2020, with over 64 million confirmed cases and 1.5 million deaths reported as of December 2020 (15). However, given the novelty of COVID-19, little is known about the content, characteristics, and propagation of health misinformation on SNSs, which hinders the development of health promotion measures, such as regulating misinformation on SNSs or educating the public to discern and discredit misinformation about COVID-19.

Research questions

To understand the prevalent topics and propagation of (correcting) misinformation about COVID-19 on Sina Weibo, China's largest microblogging site with over 500 million monthly active users (16), serving as a major platform for users to acquire and exchange health information (17), RQ1 was proposed.

> **RQ1**: What are the prevalent topics of COVID-19-related (correcting) misinformation on Weibo?

Going beyond the content of COVID-19 misinformation, misinformation propagation in the SNS environment was examined closely. Previous research on health and crisis communication documented that certain topics are more likely to gain virality and receive responses on SNSs (18,19). In the same vein, another focus of the current study was on what topics related to COVID-19 misinformation were more likely to be retransmitted and responded to on Weibo, which were operationalized as the number of reposts and comments, respectively. RQ2 was proposed:

> **RQ2**: Which topics of COVID-19-related (correcting) misinformation predict the numbers of (a) comments and (b) reposts?

Message sentiment has also been found to impact retransmission and responses on SNSs but with mixed empirical evidences. Although some supported the positivity bias as positive messages, which boost the recipients' mood and enhance sharers' public image, are more likely to be passed along and commented (19–22), others found that negative information draws more attention (23), receives more reactions from the audience (24), and is more likely to be transmitted as credible and helpful information (25,26). Given the mixed empirical evidences, RQ3 was proposed.

> **RQ3**: What is the association between the sentiment of Weibo posts on COVID-19-related (correcting) misinformation and the numbers of (a) comments and (b) reposts?

Methods

Data collection

Eight combinations of keywords, pairing 'coronavirus' and its three variations in Chinese with '(refuting) rumor', were used to search the contents during the COVID-19 outbreak in China. Despite the current study's focus on misinformation, the keyword 'misinformation' in Chinese is a formal phrase and not commonly used on SNSs. Thus, 'misinformation' was not used as a keyword in data collection, which neither generated enough textual data for analyses nor is a true reflection of the misinformation

environment on Weibo. Instead, 'rumor' was selected as the keyword in data collection, which is semantically and conceptually equivalent to 'misinformation' in Chinese, but used more widely on SNSs. Previous studies investigating the misinformation on Weibo also searched for rumors (6). In total, 177,816 Weibo posts were collected from 23 December 2019, to 29 February 2020, including the post content and metadata (e.g., number of reposts and comments, content generator's user information, etc.).

Mixed-method analyses

Structural topic modeling

Structural topic modeling (STM) is a statistical method of natural language processing to discover topics from data. It regards all the documents in a corpus as sharing the same set of topics (27). By identifying each topic through its vocabulary, topic modeling also offers a way to estimate topic proportions in the corpus. In this study, STM – a widely used advanced topic modeling algorithm compared with MALLET (28) – was applied to identify major topics on (the refutation of) rumors and estimate topic proportions.

To preprocess the text for STM analysis, characters were first segmented to delineate words, since Chinese text does not contain white space. Then, a dictionary-based approach was used to remove stop words. Thirdly, all posts left with fewer than 10 characters were removed for the lack of information. This process gave us 93,773 posts for the following analysis.

Two steps were followed to optimize the number of topics. First, diagnostic values were calculated and compared by different numbers of topics to achieve high held-out likelihood, high semantic coherence and low residuals, and 35- and 38-topic STMs were potentially optimal (see Figure S1 of the Online Supplemental Materials). Second, these two STMs were compared to evaluate their interpretability. Based on a close examination of qualitative data (i.e., 20 top-weighted words and 20 top-weighted documents) generated by both topic solutions, a 38-topic STM was retained. The quality of each topic was further assessed: a topic was considered as valid if it had at least 80% of top-weighted documents ($\geqslant$ 16) that can be labeled consistently; invalid topics were excluded from further analysis. Invalidity usually occurred because the STM mixed two or more themes due to common keywords. For instance, one topic generated from the 38-topic solution was found invalid since it mixed a rumor-refuting discussion about whether vitamin C can prevent COVID-19 and a critique of non-COVID rumors that went viral due to the shared keywords 'rumor' and 'virus/viral'.

Sentiment analysis

Sentiment analysis, also called opinion mining, is used to analyze people's opinions, attitudes, evaluations, and emotions by measuring the polarity or tonality of the texts and expressions that people use (29,30). In this paper, the dictionary-based approach was adopted to gauge the sentiment of each post (31). The National Taiwan University Sentiment Dictionary (NTUSD), which contains a total of 11,088 commonly used sentiment words (2,812 positive and 8,276 negative entries), was selected as one of the most widely used Chinese open-source sentiment dictionaries (32). NTUSD was originally used to analyze the Chinese microblog posts and understand the public opinion online (33), therefore it was deemed appropriate for the current study. For each post, the number of positive and negative words were counted, respectively. Because NTUSD contains no detailed polarity strength of each word, counted weights were assigned ('+1' for each positive word and '–1' for each negative word) (34), which yielded positive and negative sentiment scores for each post.

Inferential analyses

The numbers of reposts and comments were analyzed as outcome variables, predicted by the theta topic proportions generated by STM as well as positive and negative sentiment scores. With 76.93% of reposts and 75.75% of comments being zeros, they are referred to as zero-inflated and do not fit standard distributions (35,36). Four different models that are typically used to analyze count data – basic Poisson, basic negative binomial (NB) model, zero-inflated Poisson (ZIP) and zero-inflated NB model – were fitted to the repost and comment count distributions but resulted in overdispersion evaluated by the alpha parameter (37,38). As such, the four models were

fitted to the distributions of the log-transformed numbers of reposts and comments, which solved the overdispersion problem. The goodness-of-fit of each model was evaluated by the log-likelihood and compared by the likelihood ratio test. All analyses were conducted using *R*.

Results

Descriptive statistics

Structural topic modeling

To answer RQ1, 23 topics were labeled (see Table 1) regarding (correcting) COVID-19 misinformation and categorized into three categories. Containing 10 topics, the first category focuses on (refuting) false or untested prevention and treatment of COVID-19. For instance, Topic 1 refutes rumors that a particular type of traditional Chinese medicine (TCM) (i.e., shuanghuanglian) could prevent COVID-19. Other refuted rumors include that some pre-existing medicines can treat COVID-19 (Topics 2, 7, and 9), that certain types of masks cannot stop virus transmission (Topics 3 and 6), and certain risky behaviors can prevent coronavirus (Topics 5 and 10). Topic 4 and 8 provide health promotion advice to the public (e.g., washing hands frequently). The second category, with four topics, offers general suggestions regarding rumors during the pandemic. These suggestions include regulating the Internet to strengthen cybersecurity (Topic 11), distinguishing rumors from scientific evidence (Topic 12), discrediting rumors (Topic 13), and understanding why rumors are spreading widely (Topic 14). Containing nine topics, the third category discusses specific events that happened during the pandemic, including measures taken to understand, treat, and contain the disease. For instance, Topic 16 refutes rumors that hospitals built tents to hold COVID-19 patients, and Topic 17 discusses COVID-19-related research conducted by academic and public health institutions, such as the Chinese Academy of Sciences. Topics 19 and 20 discuss the WHO's (not) labeling the COVID-19 as epidemic/pandemic. Topics 15 and 18 address the attempt of information-control in China. Topics 22 and 23 clarify facts regarding COVID-19. And Topic 21 warns people not to understate the harm of the virus.

Sentiment analysis

Among the 93,773 Weibo posts, 1,551 posts (1.6%) extracted no sentiment words. About 90,277 posts extracted at least one negative word, with negative sentiment score ranging from –1 to –299 (mean (*M*) = –10.02, standard deviation (SD) = 10.35), and 74,114 posts contained at least one positive word, with positive sentiment score ranging from 1 to 252 ($M = 6.14$, SD = 7.00). The pattern of identifying a higher volume of negative words/posts than positive ones in this study is consistent with previous research on the sentiment of social media posts during health crises and outbreaks (39,40). One study analyzing the sentiment of COVID-related tweets posted in February and March 2020 identified more positive than negative tweets in countries such as Norway and Canada but more negative than positive tweets in other countries such as the United States (US) and India (41). According to Imran *et al.* (41), the discrepancy between the sentiment landscapes across countries could be related to the number of reported cases and how governments responded to COVID, such as imposing a strict lockdown policy, which usually triggers a great number of negative sentiments on SNSs.

Inferential statistics

The ZIP model fitted the data significantly better than other models and was implemented to answer RQ2-3, controlling for user types. The detailed fit indices of each statistical model are available upon request. How topics predicting the number of reposts (min = 0, max = 102,768, mean = 13.28, SD = 602.00) and comments (min = 0, max = 21,736, mean = 7.42, SD = 160.91) were detailed can be found in Table 1. Specifically, prevention and treatment topics (e.g., refuting rumors of TCM, Arbidol and Darunavir, or N95 masks) and warning topics (e.g., epidemic being reported to WHO, declaration of COVID-19 as an epidemic, not underestimating harm of COVID-19) were more likely to be commented and reposted. RQ2 was addressed. The negative sentiment was found as a significant predictor of the number of comments ($\beta = 0.003$, $p < 0.01$) but not reposts ($\beta = 0.001$, $p = 0.56$), while the positive sentiment predicted neither comments ($\beta = 0.001$, $p = 0.40$) nor reposts ($\beta = 0.002$, $p = 0.09$), which answered RQ3.

Table 1. Regression results of STM topics predicting numbers of comments and reposts.

Category/STM Topic	*Keywords*	*Comments (B)*	*Reposts (B)*
Prevention and treatment of COVID-19			
1. Refute rumor: TCM shuanghuanglian prevents COVID-19	Shuanghuanglian, oral solution, alleviate symptoms, Chinese medicine	0.04	0.27*
2. Refute rumor: Li Lanjun said Arbidol and Darunavir are effective	Spread rumors, Li Lanjuan, frontline, profit from national calamity	0.75***	0.40
3. Refute rumor: N95 mask with exhalation valve can't stop virus	Infectious disease, no evidence, N95, abandoned	0.48*	0.58**
4. Key elements for self-care and protection	Wash hands frequently, close contact, health, work together as one	–1.39***	–0.05
5. Refute rumor: Firecrackers prevent coronavirus	Helpful, sulfur dioxide, firecracker, respiratory	0.05	0.29
6. Refute rumors about mask disinfection	Stay safe, expert, authority, mask	0.23	0.37**
7. Refute rumor: Vitamin C prevents flu	Vitamin, viral infection, immunity, wide-spreading	–0.37***	–0.31**
8. The elderly should pay attention to blood pressure in winter	Take it seriously, coronary heart disease, kill the virus, coronary artery	0.02	0.24*
9. Refute rumor: Remdesivir is effective	Antiviral, clinical trial, Internet, China-Japan Friendship Hospital	–0.14	0.05
10. Refute rumor: Smoking prevents infection	News channel, antiviral, anti-oxidation, secondhand smoke	–0.19	0.02
General suggestions regarding rumors			
11. Regulate the Internet	Internet, police department, legal obligation, social order	–0.89***	–0.86***
12. Distinguish rumors and facts	Workers, wide-spreading, increase vigilance, independent thinking	0.36	0.49
13. Don't believe rumors	Don't believe rumors, cycle of friends, stay united, reality	–0.76**	–1.14***
14. Four reasons why rumors are wide-spreading	Internet, poorly informed, Red Guards, misinformation	0.59***	–0.03
Specific events during the pandemic			
15. Eight people were arrested for spreading unconfirmed information	wild animals, SARS, promulgator, arrested according to law	0.03	0.13
16. Refute rumor: Hospitals built tents to hold COVID-19 patients	Healthcare workers, volunteers, nonsense, work together	0.24	0.38**
17. COVID-19-related studies by public health institutions	The Chinese Academy of Sciences, official documents, infectious disease, CDC	–0.12	–0.15
18. The epidemic was reported to the WHO but denied in China until recently	Suspected cases, infectious, large scale, public health events	0.45*	0.39*
19. WHO declared COVID-19 as epidemic	Conspiracy theory, public health, WHO, muddy the water	0.31*	0.34*
20. WHO claimed no pandemic yet	CDC, Hubei Province, WHO, respiratory disease	0.06	0.28*
21. Don't understate the harm of COVID-19	Tell the truth, news reports, Weibo, take a second thought	–1.28***	1.29***
22. Refute rumor about Zhong Nanshan	Zhong Nanshan, prevent virus (spread and infection), respiratory, lab	0.05	0.28**
23. Wuhan virus is not SARS	SARS, virus, may not, stop the rumor	–0.14	–0.12

Shuanghuanglian, isatis root, and honeysuckle are all common TCM.
COVID-19, coronavirus disease 2019; SARS, severe acute respiratory syndrome; STM, structural topic modeling; TCM, traditional Chinese medicine; WHO, World Health Organization.
*$p < 0.05$, **$p < 0.01$, ***$p < 0.001$.

Discussion

Findings from this study identified three categories of topics involved in the prevention and treatment of COVID-19 (e.g., wear masks and keep social distance, Shuanghuanglian [a TCM] can prevent COVID-19), general suggestions (e.g., do not believe in rumors, the risk of COVID-19 should not be understated), and specific events (e.g., eight people were arrested for spreading unconfirmed information, WHO declared COVID-19 as a pandemic). The identification of prevention and treatment misinformation topics on social media shows consistency with previous findings of COVID-19 misinformation trends in Australia (42) and Iran (43), respectively, as well as Islam *et al.*'s (44) report of COVID-19-related infodemics across 87 countries. Besides the misinformation topics overlapping with other countries, several topics that are unique to Chinese social media emerged from this study. Specifically, several misinformation topics related to preventive measures of COVID-19 were identified, such as Shuanghuanlian, saline water, firecrackers, and even smoking. The majority of such misinformation is not only unproven by scientific evidence but even harmful to health. For instance, the harm of cigarette smoking has long been established by public health authorities, such as the Centers for Disease Control and Prevention (45), and its preventative effects on COVID-19 are groundless. Although some TCMs, such as Shuanghuanglian, received some clinical evidence (46), researchers cautioned against the adoption of TCMs as effective prevention and treatment due to the lack of rigorous long-term scientific evidence (47). While topics of specific events are meaningful in informing the public, the posts on refuting misinformation related to prevention and treatment as well as general suggestions regarding rumors have more practical implications in health promotion and education. Specifically, social media messages refuting misinformation from trusted sources could not only increase knowledge about COVID-19 and preventative behaviors, but also reduce the risk of adopting ineffective and even harmful health behaviors (48). The general suggestions regarding rumors tend to increase the public's awareness of misinformation and critical thinking when exposed to misinformation.

Fighting against COVID-19 and promoting health includes not only refuting (mis)information but maintaining social trust (48). Multiple identified topics regarding a specific event imply discrediting government and public health authorities. For instance, Topic 16 refutes a trending rumor that hospitals built tents, instead of makeshift emergency hospitals, to hold COVID-19 patients. Also, Topic 18 criticized the Chinese authorities for denying COVID-19 even after it had been reported as an epidemic to WHO. While the long-standing practice of information-control and censorship in China contributed to such discrediting, this phenomenon is not particular to China. Indeed, the public's discrediting and dismissal of the science community and health authorities are worldwide phenomena during this pandemic (49). In the digital media age, enhancing government transparency online and building up public trust in scientific and health authorities, especially during public health crises, are essential to curbing pandemic outbreaks (e.g., COVID-19) and promoting public health (48). In the case of China, the government's efforts to censor COVID-related discussion on SNSs in the early stage undermined public trust. However, as confirmed cases increased exponentially, the government relaxed its censorship and endorsed reputable public health authorities – such as Zhong Nanshan, a highly respected pulmonologist famous for managing the SARS outbreak – as spokespersons for communicating official health information and advice to the public. Such increased transparency of health information from the government and public health officials contributed to China's successful control of COVID-19, by refuting misinformation, disseminating scientific information, and winning public trust.

The inferential statistical results from this study demonstrated that users are more prone to repost information regarding prevention and treatment (e.g., Topics 6 and 8) as well as the potential threats of COVID-19 (e.g., Topic 21) during a pandemic, which could be attributed to the specific modalities of Weibo and social media users' altruism motivation (50). Weibo users not only obtain and share information, but also socialize with their strong ties, such as showing care and willingness to help family and friends (17), which are manifested in the pandemic context as sharing health education information related to prevention, treatment, and warning of potential risks. Despite the altruistic motivation of serving and helping family and friends

by sharing COVID-19 information on SNSs, individuals may not always consider its authenticity (50) or may not be capable of discerning between factual and false information before sharing (51). On the other hand, the fact that the posts refuting misinformation were more likely to be reposted also indicates the public's increasing awareness of assessing the veracity of online information and desire for scientific and accurate health advice. The only exception is Topic 7 (i.e., vitamin C prevents flu), which was negatively associated with both reposts and comments; since this topic has been presented seasonally for years and flu is less novel or risky compared with COVID-19, it is less attention-grabbing and consequently received fewer reposts and comments (21,22).

Users tend to comment on not only the topics regarding protective health behaviors and treatments (e.g., Topics 2 and 3) but also on potential threats of COVID-19 (e.g., Topics 18 and 19), demonstrating consistent patterns with the topics being retransmitted. This could be attributed to the public's general interests in, and the controversial nature of, these topics. The only exception, Topic 21, which tended to be reposted but not commented on, might be because users intended to whistle-blow the potential risk of COVID-19 on SNSs but were afraid of censorship or being accused of spreading rumor since the topic was in its infancy with high uncertainties when the data were collected. Given these findings, we suggest that SNSs implement more stringent screening and surveillance during pandemics towards posts regarding prevention and treatment, especially because social media channels were recognized as the most important sources of information and misinformation during the pandemic (52). That being said, COVID-19 misinformation, once published on SNSs, such as Weibo, are more likely to generate virality, attention, and conversation. Therefore, such misinformation on prevention and treatment tends to pose a higher risk to public health. On the other hand, SNSs could also serve as a cost-efficient platform for government and public health officials to diffuse scientific health information and advice for health promotion purposes.

It was found that posts with negative sentiments are more likely to receive comments, whereas positive sentiments have no influence on commenting behaviors. This result is in line with previous research and further supports the negativity bias (24,26). It suggests that in the context of health and risk communication, negative information might be perceived more helpful and important, which therefore attracts more attention and generates discussions. In contrast, positive information, albeit boosting recipients' mood and enhancing their public image as suggested in prior studies (e.g., 20–22), is relatively nonessential and, hence, less valued by people with high uncertainty during the pandemic. The null result of sentiments predicting retransmission, in line with previous findings (53), may relate to Chinese citizens' general hesitancy to repost rumors due to fear of surveillance.

This study has several limitations. Firstly, by using the eight combinations of keywords to collect Weibo posts, the data capture most, but not all types of COVID-19-related misinformation and their correction. Further research could consider additional linguistic variations. Secondly, this study focuses only on the text content of the Weibo post. It is possible that Weibo's social media features may mediate the propagation pattern of misinformation and its correction. For example, the comments received by a post containing misinformation may contain arguments that refute misinformation in the original post, and further increase or decrease its virality. Thirdly, further exploration of whether and how the use of non-text contents, such as short videos, memes, and images, could impact the propagation of misinformation of COVID-19, is required.

In conclusion, this study is among the first to systematically examine how the content features influence conversations regarding COVID-19 (correcting) misinformation on Weibo, a primary platform for Chinese to receive and exchange health information (17). The findings not only generate knowledge about the misinformation (correction) structure of the COVID-19 pandemic, but also inform SNS-based public health education and promotion through rumor refuting. Given its high virality and significant impact on health behaviors, misinformation related to treatment and prevention during a pandemic should be closely monitored, analyzed, and responded to on SNSs. The topics on misinformation correction also shed light on the capacity of SNSs to curb the spread and potentially minimize the consequences of health-related misinformation, which could also be leveraged as a

cost-efficient platform to diffuse accurate information and promote public health in China and around the globe.

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Original Article

Universal masking to prevent SARS-CoV-2 transmission from Taiwan's practices

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Abstract: In the fight against the COVID-19 pandemic, Taiwan, with its universal masking policy, slowed down the spread of cases and flattened its epidemic curve without enforcing lockdown or mass quarantine in 2020. This study identifies the distinguishing features of Taiwan's universal masking policy practice, such as priority, continuous improvement, multi-stakeholder partnership, transparency and accountability, and altruism and social solidarity. By confronting uncertainty through the COVID-19 crisis, this study suggests that face masking, rather than being just a physical barrier of non-pharmacological intervention, can be adopted as an interactive policy platform to empower the public for stimulating cross-sector collaboration towards social innovation and creating spillover effects, such as acts of public trust, altruism, and solidarity.

Keywords: Universal masking policy, non-pharmacological intervention, COVID-19, public trust, solidarity

Introduction

Countries worldwide have enforced several different non-pharmacological interventions (NPIs) to tackle the spread of the coronavirus disease 2019 (COVID-19). Among them are measures like personal hygiene, contact tracing, isolation and quarantine, social distancing, and universal masking (1). In community settings, discrepancies were observed in the practice of the universal masking policy (UMP) in healthy people (2). Although current scientific evidence may still be insufficient to support the widespread use of surgical or even cloth face masks against COVID-19 (1,3), the World Health Organization (WHO) broadened mask guidance on June 5, 2020 by advising the public to wear face masks in places where social distancing is difficult (4). Meanwhile, before June, more than 50 countries had already implemented UMP (5). Taiwan, Hong Kong, and South Korea, with their universal masking, appear to have slowed down the spread of cases and flattened their epidemic curves without enforcing lockdown or mass quarantine. Taiwan specifically, since its first reported case on January 21, 2020, has been able to keep schools, businesses, and public transportation open throughout the pandemic with a total of 443 confirmed COVID-19 cases and seven deaths as of June 3, 2020. Taiwan also has the most modest economic downturn in the second quarter of 2020 across 38 countries (6).

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While extensive advance preparatory work has been performed and a timely and coordinated response to address Taiwan's emerging COVID-19 outbreak has been activated (7–9), the role of face masks has been widely acknowledged as a key element to Taiwan's practice in preventing the spread of COVID-19 in 2020 (10). In this article, we aim to closely examine the evolving practices of Taiwan's universal masking from the period of January to early June 2020 and explore how these emergent strategic initiatives are implemented. Those practices on early public voluntary response and domestic mask production strategies contain valuable lessons. The distinguishing features of its epidemic prevention, such as priority, continuous improvement, multi-stakeholder partnership, transparency and accountability, and altruism and social solidarity, are identified and discussed.

Emergent strategic initiatives

Amid fighting the pandemic, the notion of mask wearing did not require much government intervention. It was essentially initiated by the public and was later complemented by the government's rationing mechanisms. Customarily, Taiwanese people are no strangers to wearing masks as personal protective equipment in public areas when it comes to flu seasons and air pollution. During the 2003 Severe Acute Respiratory Syndrome (SARS) outbreak, surgical masks were mandated for home-quarantined individuals entering communal areas inside their own homes (11). Thus, as anticipated, just a few days before the Wuhan lockdown, a massive surge in mask demand and shortage in supply struck. Taiwan's Central Epidemic Command Center (CECC) quickly proposed emergent strategic initiatives on surgical face mask production and rationing under the Communicable Disease Control Act to ensure their fair distribution and public accessibility (Supplemental Figure S1); these included: (a) export ban on surgical face masks to secure sufficient domestic use on January 24; (b) requisition, allocation, and controlled pricing for surgical face masks on January 31; (c) new surgical face mask production lines set up by February 1; and (d) Name-Based Mask Distribution System (NBMDS) established on February 6. Once a limited but sufficient supply of surgical masks was procured for each citizen, the precautionary measure of universal masking on public transport and in places where physical distancing is not possible was launched on April 1.

The Taiwanese government maintained a self-sustaining supply of surgical masks by accelerating and stimulating domestic mask production. It adopted the original equipment manufacturer (OEM) model by investing a total of NT$270m (~US$9m) on 92 production lines. This was also learned from the SARS experience during which domestic mask manufacturers did not receive a positive rate of return — a common concern shared early in the COVID-19 pandemic. However, with the compassion to help, the National Team of Mask Production of 29 companies (i.e. Team Taiwan) from Taiwan Machine Tool & Accessory Builders' Association was assembled on February 2 to assist local surgical mask machine manufacturers to set up all requested mask production lines within 40 days.

For a convenient and fair dispensing of surgical masks, the Taiwanese government developed a mask-rationing system (NBMDS 1.0/2.0/3.0), which was called for by the public and later came in line with the government's rationing mechanisms. Citizens and foreign residents with their NHI-cards or resident permits can go to 6280 NHI-contracted pharmacies on the island to purchase their rationing quota of surgical masks at a cost of NT$5 (US$0.16) per piece. With the new machines generated by Team Taiwan, the permitted quantity of face masks soon increased to nine pieces per adult and 10 per child for every 14 days.

Key elements of Taiwan's UMP

Epidemic prevention and control as top priority

The securing of mask supply was viewed as a key strategy in the very early stage of COVID-19 countermeasures. Whilst the CECC immediately reacted by restricting its export, the Ministry of Economic Affairs (MOEA) coordinated its manufacturing and helped to acquire sufficient raw materials and key components for the mask machines and production lines. Moreover, the Ministry of Finance, Fair Trade Commission, and the Ministry of Justice contributed to ensure the full implementation of export restrictions and mask price stability, and the Ministry of National Defense dispatched 800 soldiers to aid as manpower in the production. All the above measures were deployed

with epidemic prevention and control as top priority. The requisition of products and investment by the government for OEM machinery is an unprecedented achievement as various government authorities undertook their own role and unified through efficient cross-agency communication. This collaboration precisely highlights public health as the fundamental driving force for governance innovation.

Adhering to the 'health for all' principle, the CECC emphasized that prevention effort is not only the top priority, but it should also be without discrimination. Accessibility for the more vulnerable groups was supported by the rationing system. People who live in rural areas without NHI-contracted pharmacies can order masks in local public health centers, and elders living alone or people with disability can obtain masks through their local social affairs bureaus. Patients with special needs can purchase one mask per medical visit, along with their caregivers. More importantly, non-documented foreign residents can also obtain permitted masks using an alternative official route, since nearly 50,000 non-documented migrants who may find it difficult to acquire surgical masks are estimated to be working as caregivers in the hospitals.

Timely correction and continuous improvement

CECC implemented a progressive system of UMPs based simultaneously on the balance between the level of mask supply and existing scientific knowledge of COVID-19. In the first two weeks, CECC recommended the use of masks only when people visited high-risk places such as hospitals. But the mask-wearing requirement quickly tightened with the soaring number of COVID-19 indigenous cases (to more than 40 cases). UMP was finally imposed on April 1 and the reuse method of dry-steaming masks was publicized by the CECC. After more than 50 days without locally transmitted cases, CECC lifted the export ban on surgical masks while still emphasizing the importance of practicing UMP during the pandemic.

For mask production, the MOEA adopted a performance management system such as rewards for higher production yield and deduction of raw material supply for illegal sale. For the rationing scheme, the NBMDS was quickly enhanced to provide maximum public accessibility and a user-friendly purchasing interface. For example, to resolve the stockpile imbalance between urban and rural areas, and complaints of excessively long queues (and the lack of time to do so), the NBMDS 2.0 was launched on March 12 to provide both physical and online channels for purchasing. People could order their ration of masks via website or mobile apps and pick up their purchase at convenience or retail stores. NBMDS 3.0 on April 2 provided an additional physical pre-order channel by taking advantage of the world's second highest density of convenience stores across Taiwan. Now, almost all NHI-card holders or residents in Taiwan can buy masks without queueing.

Multi-stakeholder partnership

Many key actors took part in bringing face masks to the Taiwanese people. For the requisition and OEM, a close partnership established between the government and multiple stakeholders is at the heart of these endeavors, including the whole value chain of mask production and distribution. The MOEA and its related research and development centers worked closely with Team Taiwan, where all members of Team Taiwan abide by a non-competition clause and mutual trust with the manufacturers to facilitate the knowledge transfer of surgical mask machine production. Distribution and retailing of masks required private sector involvement such as the Taiwan Post, NHI-contracted pharmacies, and convenience and retail stores. Moreover, private sector engineers developed more than 100 mobile apps to act as mask availability search engines that are supported by Google Maps and NHI-open data; some apps are even designed specifically for a certain county and tailored to the information needs of elders.

Across different sectors, a wide range of actors such as key opinion leaders (KOL), politicians, celebrities, and YouTubers all mobilized to communicate with diverse groups of audiences about the importance of mask-wearing and the government's phased-in plan. Eventually, the resistance to government regulations relaxed and masking became a new social norm.

Transparency and accountability

The allocation and controlled pricing of masks, as well as UMP itself, raised legitimate concerns

regarding civil rights. Thus, CECC carefully maintains transparency and accountability regarding this matter in order to consolidate public trust, gain public acceptance, and boost their confidence towards the UMP and other pandemic responses. The price, quantity, and inventory of masks are all being documented and publicly scrutinized by the media, local government, and the congress. The NHI administration also provides real-time open display of mask inventory across the country to encourage community participation.

In CECC's daily briefing on news television and social-media channels, transparent and accountable responses to the obvious inconsistencies of UMP, rationing measures, and guidance for mask usage are openly addressed. For example, CECC explained in one of its briefings that the permitted mask quota can be increased only when the supply to medical and frontline workers is sufficient. Based on the revealed scientific evidence, CECC establishes dialogue with the society and provides reflection about the necessity of UMP and the feasibility of dry-steaming masks.

Altruism and social solidarity

Taiwan's UMP involves several strategic initiatives, which were accomplished with close public coproduction and participation. This, ultimately, spearheaded the pandemic response towards altruism and social solidarity. A good example of this would be a public campaign launched in early February when the mask supply was still short. The main appeal of the 'I Am Okay, You First' campaign was to alleviate public anxiety about mask shortages and to ensure access to masks for frontline workers. Politicians, KOL, celebrities, and YouTubers at the time voluntarily used their social platform to communicate to the public regarding healthy people needing to wear masks. On the industrial front, members of Team Taiwan, NHI-contracted pharmacies, and mask app developers voluntarily and actively exercised their expertise to fight against the outbreak, with revenue from mask sales returned to the government. The color of face masks also became a medium to promote gender equity when all male members of CECC wore pink-colored masks in their daily briefing. This color demonstration instantly received popular endorsement by the civil society.

Altruism and social solidarity have no borders. From April 1 2020, the Taiwan government initiated the 'Health For All, Taiwan Can Help' campaign for the International Aid for Masks where 50 million surgical masks were donated to the global society. Later, as urged by the public, any unused masks could be given to countries in need via the eMask system. An active engagement of the 'Health For All, Taiwan Can Help' campaign empowers the Taiwanese to extend their epidemic prevention network to the global community.

Conclusion

In the fight against the COVID-19 pandemic, emergent strategic initiatives on surgical face mask production and rationing were implemented to ensure their fair distribution and public accessibility in Taiwan. Furthermore, we pinpointed five key elements of Taiwan's universal masking practices, while some of them, such as public participation (12), transparency (13), altruism (14), and solidarity (13,14), were advocated as crucial components in the pandemic response. Our analysis further indicates that Taiwan adopted face mask intervention to create a vigorous platform to empower the public to collaborate, help, and support each other during the crisis, rather than using it simply as a physical barrier of precautionary measure.

Although some vaccines are already available for emergency use, rolling out of these vaccines and reaching herd immunity remains a great challenge in most parts of the world (15). Moreoever, the emergence of new variants is still posing potential threat to the effectiveness of these vaccines (15). Among NPIs, universal masking can be a simple, affordable, and potentially effective way to reduce airborne SARS-CoV-2 concentrations from asymptomatic cases and protect healthy individuals from virus aerosols (16,17). More importantly, universal masking with good governance can act as an interactive platform for active public participation, stimulating not only cross-sector collaboration towards social innovation, but also generating spillover effects such as public trust, altruism, and solidarity during a time of great uncertainty with COVID-19.

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Supplemental material

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Original Article

Climate change impacts on indigenous health promotion: the case study of Dikgale community in Limpopo Province, South Africa

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Abstract: The most important determinants of indigenous health promotion are availability and accessibility of water, food and traditional medicine. It is for this reason that the 1986 Ottawa Charter for Health Promotion proposed the inclusion of food, water and ecosystems in any health promotion strategies. The present study describes the extent to which climate change in the form of rainfall scarcity and increased temperatures impacts the availability and accessibility of quality water, food and traditional medicine as basic determinants of indigenous health promotion. In-depth interviews were conducted with 240 participants purposely selected from Dikgale community in Limpopo Province, South Africa. The study results show that availability and accessibility of water, food and traditional medicine are negatively impacted by increased temperature and scarcity of rainfall. These resources are scarcely encountered, and where they exist, they are of poor quality. However, community members resorted to modern technological practices such as sourcing water from the municipal water reticulation system, buying foodstuffs from retail outlets and immunization against disease via modern health care facilities. It can be deduced from the study that the prerequisites of indigenous health promotion are climate-sensitive. They become available and accessible under favourable climate conditions, and are scarce under unfavourable climate conditions, a situation that compromises the practice of indigenous health promotion.

Keywords: Health promotion, traditional medicine, climate change, Ottawa Charter, Limpopo Province

Introduction

The present study investigated how climate change in the form of increased temperature and rainfall scarcity impacts negatively on the availability and accessibility of water, food and traditional medicine as basic determinants of indigenous health promotion practices (1). The motivation for this study was the observations that increased temperature coupled with rainfall scarcity exacerbate existing health inequities by negatively impacting on the availability and accessibility of water and food as the main determinants of health promotion among vulnerable communities. A further motivation is from the 1986 Ottawa Charter for Health Promotion's proposal that any health promotion strategy should embrace quality food, water and a stable ecosystem, sustainable resources and equity (2). This suggestion received little attention in academic research until recently when research on the health impacts of climate change attracted researchers in humanities, and the natural and medical sciences. The present study, which was conducted from the perspective of social sciences, makes a contribution to Ottawa Charter for Health Promotion's (3) proposal by addressing the impacts of climate change on

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indigenous health promotion practices. Rankoana and Mothiba (1) suggest that the basic determinants of indigenous health promotion are availability and accessibility of quality food and water, and the use of traditional medicine. Chan (4) asserts that these basics are similar to the fundamental requirements for health set out in the Ottawa Charter for Health Promotion (3), namely sufficient water and food.

Availability and accessibility of quality water and food promote general health and well-being by providing daily nutritional requirements and safe drinking water (5,6). Drought, unpredictable rainfall and excessive heat are compromising the provision of food and water, which are major sources of human health and well-being (7,8). For example, Misra (9) shows that climate change hazards in the form of excessive heat and less rainfall disrupt food availability, and reduce access to food as temperature increases and rainfall declines. The World Health Organization (10) supports that the climate of the area is fundamental to good health and well-being by supplying humans with food, water and physical safety and comfort. For McMichael (11), change in climatic conditions may negatively affect the functioning of ecosystems by destroying the resources that provide indigenous health care. Poverty, hunger and malnutrition, for example, remain daunting challenges in South Africa as changing temperature and rainfall negatively affect food production and supply of clean water (12). Ziervogel *et al*. (13) show that determinants of health most likely to be impacted by climate change are availability of and accessibility to food and water. Myers *et al*. (14) corroborate that variations in temperature and precipitation patterns are negatively affecting fresh water resources and crop yields as fundamental requirements for human health and well-being.

Materials and methods

Study area

The study was based on fieldwork conducted in Dikgale community in Limpopo Province, South Africa. The community is located within Polokwane Local Municipality approximately 40 km from Polokwane City, and 15 km from the University of Limpopo in Mankweng Township (15). The community covers an area of 71 km^2 and is 6 km long and 10.8 km wide. It is situated between 23.46°C and 23.48°C south latitude and 29.42°C and 29.47°C east longitude. It lies at an average altitude of 1400 m above mean sea level (15). It is on the Highveld Plateau, which is bounded in the south and south-east by the Strydpoort Mountains and in the east and north-east by the Wolkberge. Dikgale area has an annual rainfall of approximately 505 mm. It has a daily average summer temperature of between 16°C and 27°C and between 5°C and 19°C in winter. Summer rainfall occurs between October and April, followed by a dry winter season (15). The natural vegetation consists of grassland and woodlands (15). Most community members still value cultural traditions such as traditional healing, livestock raising, ploughing the fields and ritual offering which are highly reliant on the use of wild plant biodiversity (16). The rain-fed crops are mostly planted in the home-gardens rather than in the ploughing fields due to intermittent rainfall patterns. Cattle, goats and sheep are raised by fewer households. Livestock raising is no longer common practice because of lack of natural feed from the wild (17). A smaller number of community members depend on subsistence crops as their major food source to provide dietary requirements of a balanced intake. Many indigenous plant species have potential as food, medicine and fodder, but they have to be sufficiently abundant as well as accessible to come into everyday use (18).

The community has existed for more than 50 years. It has a population of about 45,083 with a population density of 116/km^2. The primary language spoken by community members is *Sepedi*. A large proportion of adult community members are migrant workers, while others work as farm labourers on neighbouring farms, or as general workers in the local hospital, clinics and the University of Limpopo. Unemployment rate is higher among the youth (16). Dwelling units consist of a mixture of traditional mud huts and conventional brick houses. A few households use boreholes as their main water supply. Most households have pit latrines in their yards, but there is no organised waste disposal. Remarkable achievements include building of schools and clinics, and construction of roads linking the community with major resource centres such as the university, hospital and neighbouring communities (15,16,18).

Study design

A qualitative exploratory approach was adopted to collect information relating to the effects of climate change on the availability and access to water, food and traditional medicine as basic determinants of indigenous health promotion. A sample of 240 participants was purposely selected for the study. Potential participants were identified during a general community meeting. The main selection criterion used to constitute the sample was age; only participants aged 40 years and above were selected. The criterion was informed by the observation that at the age of 40, community members are either parents or adults with knowledge of the norms and values of their culture, including indigenous health care practices (1). Another criterion used was traditional medical practice. Community members practising traditional medicine were selected and identified as herbalists and diviners. A semi-structured questionnaire was developed by designing open-ended questions centred on the basic determinants of indigenous health promotion and their current status under climate change. Participants reported the importance of each determinant in health promotion, and how each is impacted by changing temperature and rainfall conditions.

The research was conducted with approval from the Turfloop Research and Ethics Committee and the local authorities. Participants consented to participate in the study by signing the standard university consent form. Anonymity was ensured by avoidance of the use of real names and identities of the participants in the study results. The interviews were conducted in *Sepedi*, the language spoken by the participants. Two master's students assisted with tape-recording, note-taking and follow-up questions, and data transcription. Data from the notes and tape-recordings were translated to English by the researcher, who was assisted by a professional language practitioner. Data were processed using a thematic content analysis method. Similar words and phrases relating to water, food and traditional medicine, as well as the manner in which changing temperature and rainfall patterns impact the availability and accessibility of water, food and traditional medicine were sorted and arranged in themes and sub-themes to facilitate analysis of data. Quality of the data was ensured by interpretation of data in terms of the participants' own description of the determinants of indigenous health promotion and how climate change is impacting their availability and accessibility.

Results and discussion

Study sample

Participants were 110 men and 130 women aged between 40 and 90 years. Of the participants, 43% were aged between 40 and 50, 15% between 51 and 60, 12% between 61 and 70, while 20% were between 71 and 80, and 10% were between 81 and 90 years. Fifteen participants were traditional health practitioners identified as five herbalists and ten diviners. The nature of the study and its goal were introduced to the sample as an investigation into the impacts of climate change on the natural resources whose availability and accessibility are basic determinants of indigenous health promotion.

Determinants of indigenous health promotion

Water availability and accessibility

A general agreement between participants was that:

> Water is important to our livelihood. Our personal hygiene is achieved through sustained quality water availability and accessibility. Promotion of good health and well-being is achieved through access to safe water for cooking, washing and bathing as well as maintenance of households and proper sanitation. Therefore, a viable water supply ensures primary prevention of susceptibility to disease.

The participants understood that sustainable provision of water is a basic requirement for good health and well-being. There was consensus among the participants that consistent access to quality water is important to sustain the livelihood of the community.

Climate change impact on water availability and accessibility

The participants' responses were that:

> Access to safe and clean water has become a major challenge. Lack of enough rainfall to recharge the water resources is the main problem as the river and boreholes get recharged from rainfall. The water level in the boreholes and river has declined. The low water level renders the resources vulnerable to pollution and health risks. The water quality in the river is poor because it is stagnant and livestock trample on it. For this reason, we do not have enough water for household consumption. Lack of water predisposes us to diseases associated with poor hygiene and sanitation such as diarrhea and dysentery.

Turner (19) corroborates that water resources are affected by increased demand and decreased groundwater recharge, which confirm a strong correlation between climate change and livelihood. The members of rural communities are most vulnerable to the effects of water shortages and droughts (20,21). The most vulnerable groups are the members of rural communities still depending on natural resources for livelihood (22).

The participants' observations of the unavailability of quality water are supported by the South African Department of Water Affairs' (23) report that South Africa is a water-scarce country with a highly variable climate with one of the lowest run-offs in the world – a situation that is likely to be significantly exacerbated by the effects of climate change. Green (24) and the International Panel on Climate Change (25) support that climate change will continue to alter the natural environment in ways that threaten the rights to health through water stress. Water is the primary medium through which the impacts of climate change are being felt in South Africa (23). These observations support the statements made by 73% of participants that:

> Available water has become a health hazard rather than a health promotion resource. We ceased to use the river water. We depend on the municipality reticulation water project, which is unmanageable due to inconsistent electricity supply.

Food availability and accessibility

Participants reported that:

> Availability and accessibility of quality food is provided through subsistence crop production in the home gardens. Subsistence rain-fed crops such as sorghum, millet, nuts, beans, melons and pumpkin constitute the traditional staple food. The crops provide a balanced diet, which involves starch, fruits and vegetables that sustain good health and well-being.

Climate change impact on food availability and accessibility

Participants reported:

> The production of indigenous crops is poor as the crops die and wither before they reach maturity and readiness for consumption. Increased hotter temperatures and less rainfall are responsible for poor production of subsistence crops. Rainfall has become scarce. Temperatures are high even in winter. The high temperature destroys the crops as they grow. Food is currently procured from the retails, and it is not affordable.

The participants' observation of food insecurity as a result of less rainfall with increased temperatures are similar to the observations by Madzwamuse (12) and Ziervogel *et al*. (13) and Griffin (26) that climate change in South Africa is negatively affecting the provision of food as a fundamental requirement for health. Vermeulen *et al*. (27) support that about 70% of people in developing countries living in the rural areas depend on indigenous food, which is recently characterized by poor production as a result of unfavourable environmental conditions. Dube and Phiri (28) add that subsistence food production is negatively affected by marginal and erratic rainfall, and excessively higher temperatures. The members of rural communities bear the brunt of changing climatic conditions, and are unable to secure food to sustain indigenous health promotion (12). Masipa (29) supports that

increased temperature patterns and scarce rainfall and their impacts on food security are increasingly recognised as a major health concern in different parts of South Africa.

Traditional medicine

Participants reported that:

> Plant materials are the main ingredients in traditional medicine administered to limit susceptibility to disease. The plant-based medicines are administered in the form of powder or charm to avoid predisposition to disease. The indigenous plants we harvest to make preventive medicine are scarcely found in the area. Whenever we identify a species, we collect them to domesticate in our home-gardens for future availability and use. The plant materials that we harvest to make preventive medicine and curative medicine are scarcely found in the wild because of lack of rainfall. As a result, we are no longer fully dependent on traditional medicine for prevention against disease. For instance, prevention against childhood diseases is attained through immunization procedures sought in the clinics and other medical centers.

Climate change impact on the availability and accessibility of traditional medicine

The responses were that:

> Increased temperature patterns and rainfall scarcity are responsible for the poor status and scarcity of medicinal plants we harvest to make health promotion medicine.

The Intergovernmental Panel on Climate Change (IPCC) (30) and Tangjitman *et al*. (31) attest that medicinal plants are vulnerable to loss and extinct due to the present and impending change in rainfall patterns. Roy and Roy (32) add that medicinal plants are largely affected by the alteration of surrounding environmental factors in the form of heat and rainfall. The IPCC (25) demonstrates that change in the rainfall patterns is negatively affecting medicinal plants around the world and could lead to loss of knowledge of key species and their medicinal value.

Conclusion

The present study describes the extent to which changing climatic conditions in the form of rainfall scarcity and increased temperatures impact the availability and accessibility of water, food and preventive medicine as the basic determinants of indigenous health promotion. The study results show that availability and access to quality water and food as well as preventive plant-derived medicine are basic determinants of health promotion. They constitute indigenous primary prevention of susceptibility to disease where community members take personal responsibility to maintain good health and well-being. A major challenge with this type of health promotion is that it is climate-sensitive. The availability and accessibility of quality water, food and traditional medicine to attain and promote good health are dependent on good rainfall with favourable temperature patterns. The study suggests that water, food and medicinal plant resources are under threat of the negative impacts of increased temperature patterns with scarce rainfall, thus compromising indigenous health promotion practices. The scarcity of these resources has forced community members to resort to modern technological practices, which embrace the procurement of safe water and food, and immunization against disease in modern health care centres. This type of health promotion mechanism is not beneficial to sustaining indigenous health promotion as part of the cultural heritage of the studied community. It can be deduced from the study that the prerequisites of indigenous health promotion practices are climate dependent. They become available and accessible under favourable climate conditions, and are scarce under unfavourable climate conditions, a situation that compromises the practice of indigenous health promotion.

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Author contributions

I am the sole author and researcher for the manuscript.

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Description of an integrated e-health monitoring system in a Portuguese higher education institution: the e.cuidHaMUstm program

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Abstract:

Background: The World Health Organization and the International Labour Organization recognize that workplace health is not only affected by occupational hazards, but is mainly affected by social determinants and individual factors. An accelerated rise in noncommunicable diseases has fostered the importance of creating supportive environments and encouraging healthy behaviours. Therefore, an operational approach to making workplaces healthy and sustainable is needed. This paper describes the development of an e-Health monitoring program entitled 'Integrated eHealth Monitoring System for Health Management in Universities' (e.cuidHaMUs™) as a possible solution to that operational approach.

Methods: We developed the program e.cuidHaMUs™ that proposes to detect risk behaviours related to noncommunicable diseases and to implement problem-solving measures by establishing a health-promoting workspace in a Portuguese higher education institution. Based on the 'I-Change' conceptual model, our program provides personalized feedback; improves health-related knowledge, attitude and good practices; and encourages actions to promote healthy lifestyles through individual health capacitation. Focusing on evaluation as an activity that generates knowledge, the e.cuidHaMUs™ program aggregates all the relevant health information, shares the results with decision-makers and evaluates health-related policy changes in the workplace.

Discussion: This paper presents the design of the e.cuidHaMUs™ program, the development of an eHealth web platform to share information between the different stakeholders, and a questionnaire to evaluate the health status of higher education institution workers (e.cuidHaMUs.QueST®). Also, the procedures for data collection and analysis are outlined. The e.cuidHaMUs™ program can enhance health surveillance through cross-sectional and longitudinal studies and provide scientific evidence to support the envisioned interventions and promotions of healthy lifestyles. This program is an effort to incorporate a holistic culture of health-promoting workspace in higher education institution policies.

Keywords: health status, noncommunicable diseases, occupational medicine, workplace health promotion, universities

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Background

For nearly a decade, the World Health Organization (WHO) and the International Labour Organization, supported by research, have reinforced the premise that workplace health is not only affected by occupational hazards, but is mainly affected by social determinants and individual factors which require new answers and an attentive and operational approach to making workplaces healthy and sustainable (1–3). One way to address these challenges is to use the concept/tool of workplace health promotion (WHP) (4–6). This concept places the joint commitment between employers, employees and society in order to contribute to the improvement of the health and well-being of people in the workplace (7). The rationale for seeking to improve health in settings where 'people work, live and socialize' (6) is based on the premise that health is largely determined outside health services and that health sustains organizational and social productivity (8).

Higher education institutions (HEIs) in general, and their employees in particular, play an important role in shaping the knowledge and skills of the next generation, and therefore in shaping future society. It is expected that HEI staff, with their beliefs and attitudes as well as their behaviour towards health, could influence their peers and themselves. They can also influence the next generation, future decision-makers, and thus have an impact on tomorrow's societies. For this to happen, it is important to resort to means capable of raising awareness and even incorporating measures and attitudes capable of generating the promotion of healthy lifestyle behaviours, either individually or in a group (e.g. employment, family and society). As recommended by the Ottawa Charter for Health Promotion in 1986 (6), 'health must be understood as a resource for life and not as a purpose of life'. Although the Ottawa Charter stressed the urgency of countries to achieve Health for All by the year 2000 and beyond, a recent study on the state of health and safety policies at work in the European Union (EU) in 5 member states shows that in over 40,000 companies, only 29.5% have measures to promote workers' health at the workplace (9). In this same respect, other scientific evidence has shown that the workplace has been viewed as playing a lower role in supporting employee health (2,4,5,9). In addition, the holistic approach to health promotion is being neglected. In that case, it is in fact necessary and urgent to adopt an integrated approach combining the prevention of diseases and the promotion of healthy lifestyles in the workplace (10).

Occupational medicine in Portugal has been one of the main instruments since the 1990s in preventing the onset of occupational diseases in workers, thereby supporting employee health. Its mission is embodied in two fundamental diplomas (DL no. 441/91 and DL no. 26/94) which attribute to safety, hygiene and health services at work (SHST): (a) prevention of occupational risks; and (b) promotion and surveillance of workers' health. However, there is still much to be done. Although the majority of large companies in Portugal (> 250 workers) have access to an occupational physician with access to medical examinations and some complementary examinations, health promotion and disease prevention are oriented towards the worker as an individual, but not oriented to the whole organization. Thus far, the activities related to health surveillance, health promotion and non-communicable disease prevention from occupational medicine routines at HEIs in Portugal have remained well below expectations.

Portuguese workers with a high level of education (as in the case of HEIs) have been neglected when it comes to health promotion. Currently, there are not any known published works in Portugal related to this topic. Therefore, the study of epidemiological profiles related to morbidity and mortality caused by, or related to, work and the improvement of the health and quality of life in an HEI population is a priority.

The principles from the Health Promoting Workplace (HPW) and Comprehensive Workplace Health Promotion Approach (CWHP) (11) are an excellent initiative towards a holistic approach for health promotion in work environments (10). Those principles are based upon the assumption that employers need to create and to support a healthy and safe workplace culture, and employees need to find ways to stay healthy and support their own well-being. The research team intends to incorporate these health promotion concepts in HEIs, encouraging employees to care for their well-being, and encouraging the employer to create a supportive management culture in support of these concepts, thereby combining health promotion with occupational health and safety (12). In this

way, to create knowledge about the different contexts of, and groups involved in, health and well-being at work, the design of a program that might influence all organizational hierarchy levels including workplace environment and organizational culture from the individual employee behaviour change is crucial.

This paper describes the research stage and the process of establishing a workplace health-related program, 'Integrated e-Health Monitoring System for Health Management in Universities' (e.cuidHaMUs™), in a Portuguese HEI.

Methods/design

Development of the e.cuidHaMUs™ program

The program

Health problem patterns, with regard to sociodemographic factors (e.g. age, sex, education status), built environment (e.g. use of materials and acoustic conditions of facilities), organizational culture (e.g. leadership's role in supporting a healthy and safe workplace), medical issues (e.g. stress and musculoskeletal injuries) and working relationships (e.g. planning and organization of work) were not known in Portuguese HEI. Thus, we designed a program that, in addition to being able to identify these patterns, help to instil in the employees the will and need to change unhealthy practices, not only at an individual level but also at the group level (in each university department and service) and across the community. To encourage employees to take care of their well-being, they need to be aware of their current unhealthy behaviour in order to be able to assume a change in their habits. However, it takes time for this change to take place.

There are several conceptual models to change behaviours over time, such as the 'I-Change' model (13–15). This model is based on a personalized approach of three stages (Awareness, Motivation, and Action) that, in addition to giving the theoretical orientations underlying health problems, empowers and motivates individuals to generate their solutions to these problems.

Based on the 'I-Change' model, the e.cuidHaMUs™ program was conceptualized as a monitoring instrument that will provide workers with the tools to raise awareness, to improve motivation and encourage actions to promote healthy lifestyles. This instrument will also help HEI's decision-makers to take actions according to the results found and has the possibility of changing local workplace politics guided by the principles from the CWHP approach (11).

Furthermore, the e.cuidHamUS™ program is able to do what occupational medicine does not: it can aggregate all the relevant health information for a specific period in time (retrospective analysis), and help improve health policies by sharing the results with decision-makers and evaluate health-related policy changes in the future (prospective analysis).

The e.cuidHaMUs™ program has two main functions: (a) health monitoring with screening and prospective surveillance; and (b) intervention, from avoidable events to noncommunicable disease (NCD) prevention and health promotion. The former consists of an online platform and the latter function allows the opportunity to build a worker's health registry for the conduct of research on NCD topics. More detailed descriptions are presented in the next section.

The results of this program should be used to assess feasibility and acceptability on two main lines of action from an individual point of view and from a collective one: (a) health surveillance; and (b) health intervention. Because occupational health surveillance cannot in itself be applied to aspects related to work only (10), these two lines can contribute to supporting a holistic approach to health promotion across the workplace and to reduce the most critical health problems found.

Inasmuch as the orientations of the WHO regarding occupational safety and health encourage a range of activities, including the implementation of a program that promotes the prevention of occupational risks and promotes the health and safety of workers (16), the e.cuidHaMUs™ program can be integrated in the context of SHST in HEIs as a support and complement.

The target population

The target population is the entire population of workers (teachers, researchers and technical, administrative and management staff) above 18 years of age at the University of Aveiro (UA). The UA is considered here as the context incubator of this program. However, the e.cuidHaMUs™ program can be adjusted to fit any other organization's

routines. UA is one of the most dynamic and innovative universities in Portugal. Attended by about 2100 workers (distributed amongst 16 departments, 4 polytechnic Schools and 7 services under the management of UA administration), and 13,600 students in undergraduate and postgraduate programmes, the UA has achieved a significant position amongst HEIs in Portugal.

UA provides annual medical consultation in occupational medicine to its staff members only. Because of this, such workers will all be invited to participate in the e.cuidHaMUs™ program at the time of the medical consultation. Exclusion criteria is not considered.

Development of the e-health platform

The e-health platform was designed to be dynamic and easy to use, which is where collaboration with communication design experts plays an important role. This resource includes a toolkit, comprising storage, gathering and displaying information (both current and historical data) related to NCDs. All data are stored in the so-called 'e.cuidHaMUs™ database'. The data can be exported to other software applications (such as the R foundation) for further statistical analysis. The platform will comply with the European Union (EU) General Data Protection Regulation best practices (17).

To develop this fully functional web platform, several factors are taken into account: (a) the participant/user's needs; (b) the functional and non-functional requirements (such as authentication, authorization levels, platform performance, and scalability); (c) the prototype; and (d) developing and testing. In future developments, each stage of evaluation testing will be carried out by panels of experts and end-users.

To access their own data, all users can voluntarily register in the platform. In the registration it is necessary to fill the numeric code attributed in the e.cuidHaMUs.QueST® (for more details about the e.cuidHaMUs.QueST®, see the section below). The numeric code for each questionnaire is randomly generated, certifying that each questionnaire is unique and individual.

In this platform, the program invites all users to participate in other validated scales, among which are worth mentioning: (a) the pain survey (the location and intensity associated with pain will be assessed through the Brief Pain Inventory Scale (18)); (b) the diet survey (evaluation of the diet of the people participating in the study will be made using the semi-quantitative food frequency questionnaire (QFA) (19)); and (c) the physical activity survey (information on physical activity will be based on the application of a questionnaire validated for the Portuguese population (20)). The purpose of these scales is to complement the questions presented in the e.cuidHaMUs.QueST®, allowing further analyses.

The platform is designed to help monitor different types of studies. The observational studies will help to describe the health status of this population each year. As the study population is very stable, allowing for multiple, repeated measures over time for selected NCD indicators, such as overweightness and obesity, diabetes, hypercholesterolemia, etc., several studies could be prepared for each NCD indicator found (prospective cohort studies).

One of the goals of this platform is to disseminate information between the different stakeholders, but with different levels of access, namely:

1. **The decision-makers** (composed of a variety of people from different levels of the organization: rector, directors of departments, schools and services) – they will analyse the data from a collective perspective. The information presented in the platform can help to make some decisions according to the prevalence of the most relevant health problems found in specific places within the University (Global University, Departments, Schools, and Services) and to facilitate the implementation of problem-solving measures;
2. **The researchers** – they can work the raw data to gather more information about a specific health problem. Another important role is to propose and design new observational studies, but also randomized controlled studies. Using the e.cuidHaMUs™ database, the researchers can propose and manage new research projects within the platform. These projects should be related to working health problems.
3. **The users** (the most important stakeholder) – the platform can be used to answer other validated scales, analyse their records and historical data, and to compare against other reference values (national, institutional, departmental). Another important characteristic is the possibility of

receiving personalized alerts and/or content about healthy lifestyles.

This e-health platform will take an active role in monitoring the health of the population of workers. In this way, the platform will provide scientific information that may be the basis for decision-making in matters of risk, prevention, and health promotion.

An evaluation tool: the e.cuidHaMUs. QueST®

A specific, epidemiological questionnaire for employees entitled 'e.cuidHaMUs.QueST®' was designed to collect general data on social and demographic characteristics, physical and mental health, smoking habits, status of pain, eating habits, physical and sporting activity, and diagnostic exams with screening tests (see questionnaire in Appendix A). This is a short and self-administered questionnaire that was designed based on a questionnaire used by doctors in occupational medicine at the UA, and the opinions of a panel of experts consisting of four members (occupational health physician, epidemiologist, physiotherapist and cardiologist) who helped to build the questionnaire for its use in the e.cuidHaMUs™ program. First, the questionnaire was pre-tested on 12 users and then applied to the population that attended the occupational medicine department between June 2017 and June 2018.

The first parts of the questionnaire are completed while employees (users) are waiting for the consultation in the lounge; it takes around four to five minutes to complete. The last part related to 'diagnostic exams with screening tests' is fulfilled with the help of the occupational medicine doctors.

A trained interviewer presents the objectives of the questionnaire, and, if the user agrees to participate, an informed consent declaration in hardcopy is given and signed by him or her. The user is provided with an individual numeric code to prevent personal identification. Whenever the users go to the doctor's office at work, they will receive a different numeric code.

The questionnaires are entered in the e. cuidHaMUs™ platform (see details in previous section) by the researcher and will be kept as long as the users desire. The data will be analysed only in aggregate while the participants are employed at UA.

The e.cuidHaMUs.QueST® is registered by Inspeção Geral das Atividades Culturais (IGAC) from an organization, part of the Portuguese Ministry of Culture with reference no. 4244/2017 and no. SIIGAC/2017/8834. Favourable organizational permission and favourable ethical opinion was gained from the Rectory of the UA and the Ethics Committee (CE) (see section 'Ethical considerations') prior to starting the program.

Results from a preliminary pilot study

With the purpose of establishing a data cohort for the health of the UA workers, using the e. cuidHaMUs.QueST® for data recollection, a preliminary study was conducted between June 2017 and June 2018. The sample size was 322 (18.7% of the staff of the UA population, at that time) and the response rate of those invited to participate in our study was 93.3%. The main findings of this preliminary study show that the majority of participants (69.5%) do not walk over 30m/day as recommended (21,22) and over one-third (43.2%) had hypercholesterolemia (a biological NCD risk factor) (13,23).

Procedures for data collection and sharing information

In Figure 1, it is possible to see the study procedures in the e.cuidHaMUs™ program. The first procedure is related to the collection of data using the e. cuidHaMUs.QueST®. Cross-sectional studies can be made only with this type of data.

The second procedure is how the information is stored and displayed in the e.cuidHaMUs™ platform. The privacy and security of the system is ensured by using two independent encrypted databases, one for personal data, and a second one for health data. All passwords and codes are encrypted by bcrypt and data access requests are centralized in encrypted SQL Server Stored Procedures. Mechanisms for the prevention and detection of brute force attacks have also been implemented.

Participants access their private area on the platform and insert the questionnaire code, associating the questionnaire to their account. In this way, participants will associate several questionnaire codes to their account over the years.

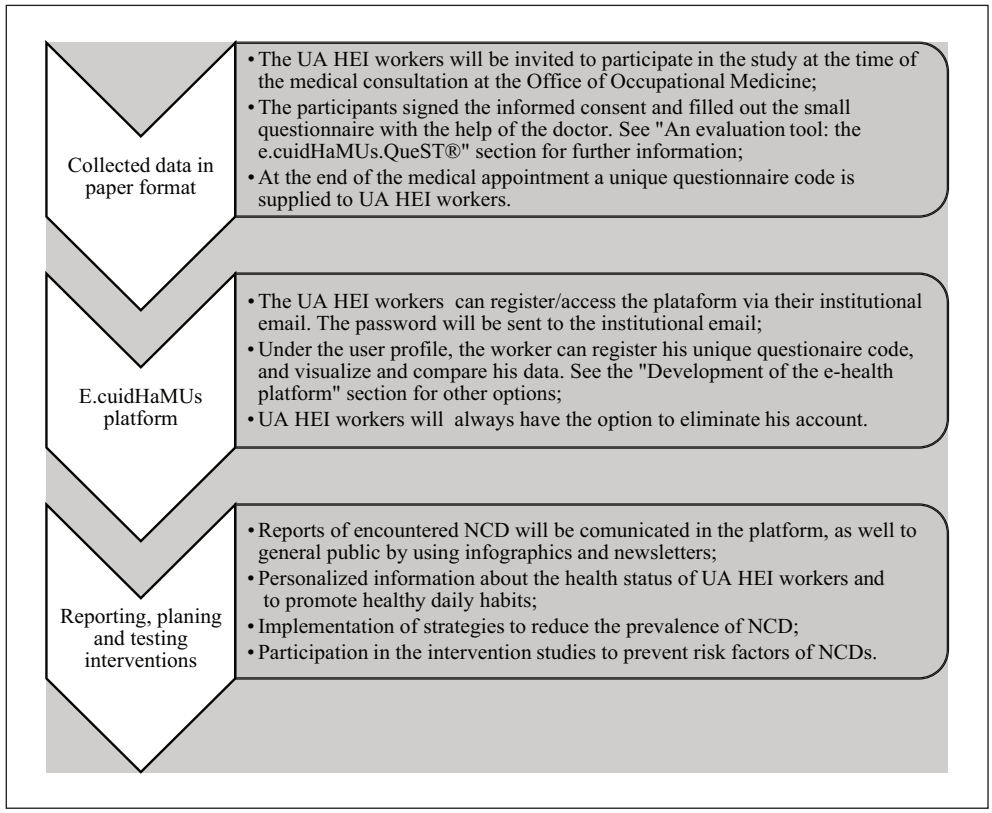

Figure 1. Schematic presentation of study procedures in the e.cuidHaMUs program.

In the platform, the user will authorize the sharing of his or her information for data visualization and statistical treatment as outlined in the informed consent waiver. The anonymity of personal information is guaranteed by the platform. All public data will not present any personal information. For example, overall results with fewer than 10 records will not be displayed.

The third procedure is related to reporting the results, planning and testing interventions. Reports will present the statistical analyses of NCDs and health habits of workers.

Conferences, infographics, newsletters and scientific papers will be the means of disseminating information. The implementation of specific protocols to solve health issues will also be available on the platform. Finally, registered users in the platform are invited to answer validated scales and participate in the intervention's study designs.

Ethical considerations

The studies included in the e.cuidHaMUs™ program comply with all ethical standards contained in the Helsinki Declaration of the World Medical Association and the guidelines of Portuguese Data Protection Impact Assessment (DPIA) (14).

The CE of UA approved the preliminary study (no. 14/2016) to ensure that the study procedures comply with ethical and legal standards (Law no. 3/2014, of January 28) namely:

1. The instruments are simple and non-invasive.
2. Participation in the project is voluntary and participants can withdraw at any time from the study, requesting the elimination of data in person or via email (inserted in Informed Consent), without this causing any type of harm to them.

The following guidelines were also considered:

1. The data are kept as long as the users desire so, or as long as they work at UA, and they will be presented only in an aggregated format.
2. The data can be erased by a worker's request or when they leave the institution.
3. During registration in the e.cuidHaMUs™ platform, the users are encouraged (not mandatory) to give their contact information, namely, their email addresses. This feature had been planned to be used as an element of association with: (a) the questionnaire numeric code; (b) the personal data. Both were stored in two independent servers to prevent the crossing of data.

The Data Protection Officer (DPO) at UA gave a favourable opinion on the project.

Discussion

Current status of the e.cuidHaMUs™ program

The e.cuidHaMUs™ is considered an 'organizational' structure of multiple projects and related initiatives. It is proposed to design and implement health-related strategies and to share relevant information with workers, managers and health professionals of occupational medicine in HEIs. The ambition is to improve occupational health by adopting a holistic approach (10). For this purpose, the e.cuidhaMUs™ program can help to improve access to better-quality health information, both at the individual level and at the community level, promoting active participation of all the stakeholders, contributing to the community's health and well-being. The e.cuidHaMUs™ program is currently dependent on the consultations in occupational medicine at UA. All workers at UA will be called to this appointment at regular intervals (usually annually). Thus, the population study is quite stable, allowing the construction of cohorts for longitudinal and interventional study designs. It is very common to have workers with 30 or more years in the same institution. However, it is expected to have some fluctuation represented by the incorporation of new workers replacing the retiring ones.

To our knowledge, we are the first team to implement a targeted monitoring program in Portugal for people during their active life in their workplace that aims to research, support and encourage strategies for health promotion and disease prevention in a relationship between a group of researchers and a team of occupational medicine staff. This is an effort to incorporate a culture of health promotion in university policies, approaching the concept of the health promoting university (HPU). One strategic approach of the HPU is to consider information about the needs of the worker's community and evaluate the efficacy of the implemented actions (15,24–27).

The e.cuidHaMUs.QueST® allows, in a short time and with few questions, the coverage of a very wide set of domains to understand the needs of workers' health. Results about social and demographic characteristics, physical and mental health, smoking habits, status of pain, eating habits, physical and sporting activity, and diagnostic exams with screening tests are now available for all the stakeholders. This evaluation tool can be used to draw an annual health profile of the population, and at the same time could be used to identify risk factors to inform the planning of health promotion programmes in HEIs.

The preliminary study provided new information to the medical community and decision-makers on risk factors that lead to NCDs. This means that it is now possible to aggregate information about each problem, each risk factor and each trend in the workplace. From the preliminary pilot study, we found that most participants (69.5%) do not walk over 30m/day and over one-third (43.2%) had hypercholesterolemia. We can now address these issues.

The e.cuidHaMUS™ platform will allow employees to visualize their health status over the years. Additionally, with the e.cuidHaMUS™ program, we hope to be able to motivate workers to participate in health promotion strategies and help improve their health and/or prevent health problems by meeting WHP goals (1,2,5). In our preliminary pilot study, the response rate was 93.3%, which reveals a great interest on the part of the participants to know more about their health status.

A very recent systematic review shows that the effectiveness of strategies for implementing health promotion measures and practices directed at modifiable risk factors for chronic diseases in the workplace is sparse and inconsistent (5). In that review, no strategies based on e-platforms or personal health history applied to HEIs could be found.

Therefore, we believe that the e.cuidHaMUs™ program can have a very substantial impact on employee awareness of their lifestyles and could lead to consequent results (28). Thus, by involving all workers communally, including decision-makers, we believe that the e.cuidHaMUs™ program will have a significant impact on UA and other organizations that want to join this program, as it contemplates a change in routine behaviours, giving wider attention to long-term needs and lifestyles, and, consequently, will lead to healthier and more productive citizens.

Next steps

In addition to the health monitoring and surveillance of HEI workers, the e.cuidHaMUs™ program provides the chance for conducting observational studies, namely cross-sectional studies and longitudinal studies (both prospective and retrospective). In this respect, a set of longitudinal observational studies is envisioned at 5, 10 and 20 years. The first longitudinal study is envisioned for the next five-year period. The e.cuidHaMUs™ program can also conduct randomized controlled studies (RCTs). For example, workers who have a risk factor for NCDs can be directed to non-pharmacological/lifestyle options (29). Based on the initial results, we will implement and evaluate an RCT for the most prevalent risk factor: hypercholesterolemia (43.2%). The addition of new study areas, namely those related to the psychosocial and organizational work culture (30), is also planned

Based on the viability of this program for the HEI workers, one of the highest priorities in the future will be to extend this program to the rest of the community: the students of this institution.

Conclusion

Workplaces are excellent places to implement health promotion initiatives because people spend most of their lives in these places, making adherence outside these contexts much more difficult. Therefore, the managers or regulatory decision-makers of institutions should take more initiatives to care and to improve the safety and health of their workers in the context of growing longevity with strategies to prevent health problems. Therefore, monitoring health in workplaces, complemented by research and strategies to promote the health of the workers, could be the key to healthier workers.

The outcomes of the e.cuidHaMUs™ program will have the potential to: (a) be replicated in other HEIs to allow health surveillance and adjust health policies; (b) draw governmental attention to adjust some health decisions for educational institutions; (c) disseminate the results concerning good practices in health promotion; and (d) improve global health of the workers and decrease the burden of diseases to contribute to the spread of the HPW.

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Supplemental material

Supplemental material for this article is available online.

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Original Article

A short-form suggestion for the Turkish version of the European Health Literacy Survey Questionnaire: a development and validation study in university students

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Abstract: The European Health Literacy Survey Questionnaire was translated into Turkish following a validity and reliability study, but there is no comprehensive short form available. We aimed to suggest a short form of the 47-item Turkish version of European Health Literacy Survey Questionnaire in this study. Data were obtained from a cross-sectional study that included a total of 686 students, 345 male and 341 female, conducted in nine different faculties of a university using the Turkish version of European Health Literacy Survey Questionnaire. The development process of the short form was conducted using principal component analysis with exploratory factor analysis, and correlation and regression analyses. The validation process was done using confirmatory factor analysis and regression analysis. Based on the results, a 12-item short form was developed, retaining the conceptual framework of the European Health Literacy Survey Questionnaire. The short form was shown to have adequate psychometric properties with high reliability, good validity, a high and moderate level of correlation, and a good model fit with the independent dataset in this cross-sectional study. The short form developed in this study was demonstrated to be a valid and reliable tool to measure health literacy easily and rapidly in Turkey.

Keywords: health literacy, European Health Literacy Survey Questionnaire, Turkish version, short form

Introduction

The concept of literacy, which not only refers to reading and writing but also to understanding, interpreting, and generating correct and applicable ideas from the information gained (1), has also been used in the field of health. Health literacy (HL) is defined as the level of competence of individuals to access, understand, appraise, and apply the information necessary to decision-making, protection, and development of health (2,3). As emphasized by this definition, HL is crucial to all societies and public health. Because of insufficient knowledge about diseases and general health status, insufficient HL may result in lower adherence of patients to treatment and management of their diseases, and greater health problems. The lack of HL may have consequences such as an increase in health problems both personally and socially, and the inability to use health services effectively; strengthening HL can produce solutions such as increasing the adaptability and commitment of individuals, especially in the treatment processes, strengthening management skills in the subject of disease, and changing behaviours (3–5). Therefore, it is important for health policy makers and health care

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Table 1. Demographic characteristics in the development and validation samples.

Characteristics	*Development sample*	*Validation sample*	*p*
Age (years)	21.12 ± 1.83	20.90 ± 1.72	0.117
Gender, *n* (%)			
Male	165 (48.1)	180 (52.5)	0.252
Female	178 (51.9)	163 (47.5)	

providers to evaluate the HL level of individuals to be able to make more effective applications and interventions and improve health conditions both individually and in general in their countries. For the conclusion and application stages of these interventions and policies to be rapid, it is important to make this evaluation as quick and practical as it is comprehensive.

The 47-item European Health Literacy Survey Questionnaire (HLS-EU-Q47), developed by the European Health Literacy Survey Consortium to deeply examine the dimensions of HL, conducts a comprehensive review on the basis of the theoretical conceptual model of HL (2,6). The Turkish version of the HLS-EU-Q47, which has been used as a valid and reliable tool for measuring HL in many European countries (7), was created by Abacıgil *et al.* (8) (Turkish version of the HLS-EU-Q47, called HLS-TR-47), following a validation and reliability study. However, because of the 47 items it contains to make a comprehensive evaluation, this scale is not a quick and practical assessment tool.

This study aimed to develop and investigate the validity of a comprehensive short form of the HLS-TR-47 questionnaire, which could be used to screen HL in the general public more rapidly and easily in Turkey, based on the data obtained using HLS-TR-47.

Methods

The data used in this study were obtained from a study conducted in nine different faculties of a university using the HLS-TR-47, which was carried out in a cross-sectional manner and included a total of 686 students, 345 male and 341 female, aged between 18 and 29, continuing their education during the 2018–2019 semester (9).

The HLS-EU-Q47 was developed by the HLS-EU Consortium in 2012 to evaluate a person's ability to access, understand, appraise, and apply information related to health in health care, disease prevention, and health promotion dimensions (6,10). It was adapted to Turkish following the validity and reliability study by Abacıgil *et al.* (8). The scale contains 47 items related to three health dimensions (health care, disease prevention, and health promotion), and four information-processing dimensions (access, understand, appraise, and apply) related to each health dimension, so there were 12 sub-dimensions (2,6). The general HL (GEN-HL) index consists of 47 items and three sub-indices: health care (HC-HL) consisting of 16 items, disease prevention (DP-HL) consisting of 15 items, and health promotion (HP-HL) consisting of 16 items commonly used in European countries (6,11). In the validity and reliability study, Cronbach's alpha values were 0.95, 0.86, 0.87, and 0.91 for GEN-HL, HC-HL, DP-HL, and HP-HL, respectively (8). The HL indices were standardized between 0 and 50 using '(mean-1).(50/3)' formula, where the mean is the arithmetical mean of responses to all items (11).

Statistical analysis

Development

To validate the short form with an independent sample (12), the initial sample of 686 subjects was randomly divided into two subgroups ($n = 343$). One sample was used for the development process, and the other was used for validation. There were no significant differences between the groups in terms of demographic characteristics (Table 1).

The Kaiser–Meyer–Olkin (KMO) measure was used to examine the adequacy of sample size (13), and Bartlett's test for sphericity was used to investigate whether the data matrix was suitable in terms of adequate correlations between the variables. An exploratory factor analysis (EFA) with a principal component analysis (PCA) and varimax rotation techniques was conducted to determine the components of the HLS-TR-47. Pearson correlation analysis was used to detect the correlation of each

item with the total score of HLS-TR-47 (14), and linear regression analysis was used to estimate the standardized coefficients of each item as independent variables of the total score of HLS-TR-47 (15,16). Cronbach's alpha and corrected item-total correlations were also controlled for internal consistency (17). The basic selection criteria had the highest factor loading in EFA with HLS-TR-47, and the results of the other three analyses were used as helping criteria to decide which item should be selected if two items have similar or closed factor loading. In this way, a four-criteria elimination was used for selection of the items with the highest: (a) factor loading, (b) regression coefficient, (c) correlation, and (d) corrected item-total correlation. Each of the four analyses was performed four times, one for total HLS-TR-47 (GEN-HL) and three separate analyses for its three dimensions, HC-HL, DP-HL, and HP-HL. Thus, each criterion can be doubled in this way.

As using the number of items equal to or less than half the number of items included in the full form was suggested (12) in the literature, along with using an equal number of items from each dimension to provide more stable measurement and contribute to improve internal consistency (12,18), items were selected for the short form so that there is at least one item from each component.

In this context, 24 items were selected according to the selection criteria and literature explained above. Of these 24 items, 12 items with the highest factor loadings were determined as the first test set of short form (SF-t1), while 12 items with the highest regression coefficients were selected as the second test set (SF-t2), from the pairs in each of the 12 components. Second, the initial four-criteria elimination procedure was applied again for the selected 24 items and from the pairs in each of the 12 components; 12 items with the highest factor loadings were selected for the third test set (SF-t3), and 12 items with the highest regression coefficients were selected as the fourth test set (SF-t4).

Finally, Pearson correlation analyses (18) and linear regression analyses were used to examine how much of the variance of HLS-TR-47 can be explained by each test set separately.

Validation

To examine the construct validity of the short form, confirmatory factor analysis (CFA) with the maximum likelihood estimation technique was used (19). To assess the suitability of the model ($\chi 2/df$), root mean square residual (RMR), root mean square error of approximation (RMSEA), normed fit index (NFI), goodness of fit index (GFI), comparative fit index (CFI), and adjusted goodness of fit index (AGFI) model fit indices were used.

Statistical analyses were performed using the IBM SPSS v.22 and IBM Amos v.22 statistical packages, and 0.05 was considered as the statistical significance level.

Results

For the whole scale, a 12-component structure explaining 55.97% of variance was obtained in the factor analysis, where KMO = 0.851 was demonstrated to be sufficient, and Bartlett's test of sphericity ($\chi^2 = 4665.895$, $p < 0.001$) indicated adequate correlations between the variables. This 12-component structure, which represents the 12 sub-dimensions, was compliant with the concept of HL. For the HC-HL dimension, a 4-component structure explaining 55.10% of variance (KMO = 0.764, $\chi^2 = 972.458$, $p < 0.001$); for the DP-HL dimension, a 4-component structure explaining 55.47% of variance (KMO = 0.835, $\chi^2 = 1234.860$, $p < 0.001$); and for the HP-HL dimension, a 4-component structure explaining 52.31% of variance (KMO = 0.850, $\chi^2 = 1240.752$, $p < 0.001$) were obtained.

Internal consistency was satisfied with Cronbach's alpha values of 0.91, 0.84, 0.82, and 0.88, for GEN-HL, HC-HL, DP-HL, and HP-HL, respectively.

In Table 2, the 24 items with the highest factor loading and included in the subset are marked as bold, and those selected for test sets 1 and 2 are indicated with SF-t1 and SF-t2 (Table 2).

For the whole scale with the selected 24 items, the factor analysis yielded an explanation ratio of 54.79% of variance (KMO = 0.795, $\chi^2 = 1726.805$, $p < 0.001$), while the explanation ratio of the variance was 58.74% for the HC-HL dimension (KMO = 0.625, $\chi^2 = 393.855$, $p < 0.001$), 63.04% for the DP-HL dimension (KMO = 0.733, $\chi^2 = 474.117$, $p < 0.001$), and 58.85% for the HP-HL dimension (KMO = 0.728, $\chi^2 = 379.357$, $p < 0.001$).

Internal consistency was satisfied with Cronbach's alpha values 0.83 for GEN-HL with 24 items, 0.72 for HC-HL, 0.78 for DP-HL and 0.73 for HP-HL.

Table 2. Factor loadings, correlations and standardized regression coefficients.

Dimension	*Test set*	*Item no*	*Factor loadings for GEN-HL*	*Factor loadings for dimension*[a]	*Item-total correlation for GEN-HL*	*Item-total correlation for dimension*[a]	*Pearson correlation for GEN-HL*	*Pearson correlation for dimension*[a]	*Standardized regression coefficients for GEN-HL*	*Standardized regression coefficients for dimension*[a]
HC-CL	SF-t2	**1**	0.658	0.801	0.426	0.478	0.369	0.413	0.123	0.065
	SF-t1	**2**	0.770	0.850	0.431	0.443	0.352	0.457	0.090	0.218
		3	0.388	0.424	0.355	0.409	0.195	0.285	−0.070	−0.005
		4	0.461	0.373	0.276	0.322	0.331	0.408	0.173	0.192
		5	0.573	0.656	0.365	0.405	0.316	0.369	0.016	0.057
	SF-t1/SF-t2	**6**	0.729	0.767	0.325	0.391	0.292	0.370	0.108	0.157
		7	0.605	0.731	0.351	0.384	0.240	0.278	0.002	0.012
		8		0.377	0.320	0.414	0.220	0.347	−0.026	0.084
		9		0.756	0.344	0.383	0.360	0.406	0.151	0.201
	SF-t2	**10**	0.577	0.711	0.390	0.352	0.196	0.201	−0.038	−0.028
	SF-t1	**11**	0.670	0.775	0.379	0.343	0.193	0.230	−0.031	0.027
		12	0.496	0.590	0.346	0.350	0.221	0.285	0.066	0.103
		13	0.640	0.611	0.291	0.342	0.186	0.308	0.019	0.085
	SF-t1	**14**	0.703	0.762	0.319	0.357	0.221	0.279	0.018	0.028
	SF-t2	**15**	0.409	0.671	0.284	0.286	0.314	0.349	0.097	0.153
		16		0.581	0.328	0.284	0.244	0.274	−0.014	0.069
DP-HL		17	0.304	0.415	0.471	0.430	0.359	0.357	0.080	0.214
	SF-t2	**18**	0.544	0.531	0.485	0.550	0.270	0.247	−0.019	−0.028
		19	0.486	0.466	0.358	0.394	0.214	0.220	0.027	0.057
	SF-t1	**20**	0.662	0.648	0.398	0.472	0.268	0.233	0.020	0.013
	SF-t1/SF-t2	**21**	0.689	0.685	0.376	0.442	0.287	0.310	0.134	0.131
		22	0.666	0.768	0.403	0.432	0.274	0.272	0.054	0.118
		23	0.532	0.644	0.421	0.428	0.214	0.202	−0.034	−0.013
		24		0.529	0.517	0.439	0.255	0.179	−0.038	0.016
	SF-t2	**25**	0.389	0.705	0.454	0.465	0.217	0.223	0.038	0.061
	SF-t1	**26**	0.522	0.831	0.447	0.462	0.173	0.149	−0.102	−0.063
		27	0.376	0.632	0.445	0.503	0.252	0.234	0.114	0.084
		28		0.672	0.484	0.504	0.266	0.229	−0.063	−0.071
	SF-t1/SF-t2	**29**	0.700	0.764	0.443	0.442	0.385	0.355	0.132	0.197
		30	0.568	0.709	0.383	0.312	0.274	0.259	0.075	0.107
		31	0.505	0.663	0.379	0.318	0.230	0.226	−0.056	0.078

(Continued)

Table 2. (Continued)

Dimension	*Test set*	*Item no*	*Factor loadings for GEN-HL*	*Factor loadings for dimension*[a]	*Item-total correlation for GEN-HL*	*Item-total correlation for dimension*[a]	*Pearson correlation for GEN-HL*	*Pearson correlation for dimension*[a]	*Standardized regression coefficients for GEN-HL*	*Standardized regression coefficients for dimension*[a]
HP-HL		32	0.489	0.576	0.406	0.353	0.247	0.226	0.009	0.015
	SF-t1	**33**	0.685	0.680	0.405	0.416	0.228	0.295	−0.005	0.086
	SF-t2	**34**	0.313	0.700	0.436	0.427	0.268	0.294	0.033	0.050
		35		0.482	0.528	0.515	0.319	0.338	−0.067	0.024
		36		0.601	0.459	0.440	0.351	0.379	0.064	0.154
		37	0.611	0.724	0.412	0.374	0.310	0.321	0.051	0.125
	SF-t1/SF-t2	**38**	0.635	0.714	0.449	0.464	0.325	0.337	0.105	0.087
		39	0.609	0.629	0.444	0.442	0.235	0.271	−0.051	0.001
		40	0.472	0.490	0.417	0.463	0.287	0.323	0.063	0.101
		41		0.769	0.340	0.365	0.171	0.218	−0.032	0.012
	SF-t2	**42**	0.327	0.534	0.429	0.448	0.297	0.316	0.116	0.075
	SF-t1	**43**	0.521	0.494	0.361	0.389	0.199	0.251	−0.069	0.005
		44	0.673	0.715	0.465	0.496	0.342	0.384	0.141	0.155
	SF-t1/SF-t2	**45**	0.734	0.760	0.417	0.469	0.256	0.337	0.028	0.114
		46	0.698	0.727	0.419	0.462	0.246	0.326	−0.035	0.036
		47	0.704	0.718	0.484	0.510	0.282	0.335	0.029	0.039

[a]Results were obtained from three analyses performed separately, for health care (HC-HL) with 16 items (1–16), for disease prevention (DP-HL) with 15 items (17–31), and for health promotion (HP-HL) with 16 items (32–47), and are shown in one column to facilitate comparison.

Table 3. Factor loadings, correlations and standardized regression coefficients for selected 24 items.

Dimension	*Test set*	*Item no*	*Factor loadings for GEN-HL*	*Factor loadings for dimension*[a]	*Item-total correlation for GEN-HL*	*Item-total correlation for dimension*[a]	*Pearson correlation for GEN-HL*	*Pearson correlation for dimension*[a]	*Standardized regression coefficients for GEN-HL*	*Standardized regression coefficients for dimension*[a]
HC-CL	SF-t4	1	0.830	0.710	0.416	0.456	0.369	0.413	0.128	0.123
	SF-t3	2	0.832	0.766	0.406	0.415	0.352	0.457	0.098	0.263
	SF-t3/SF-t4	6	0.814	0.583	0.331	0.348	0.292	0.370	0.127	0.218
		7	0.752	0.643	0.327	0.344	0.240	0.278	0.007	0.061
		10	0.697	0.809	0.367	0.302	0.196	0.201	–0.001	0.055
	SF-t3/SF-t4	11	0.783	0.815	0.390	0.354	0.193	0.230	0.003	0.063
		14	0.710	0.796	0.282	0.275	0.221	0.279	0.022	0.109
	SF-t3/SF-t4	15	0.719	0.777	0.248	0.197	0.314	0.349	0.147	0.229
DP-HL		18	0.592	0.507	0.474	0.510	0.270	0.247	0.020	0.052
	SF-t3/SF-t4	20	0.731	0.725	0.366	0.443	0.268	0.233	0.041	0.035
	SF-t3/SF-t4	21	0.724	0.739	0.368	0.445	0.287	0.310	0.085	0.154
		22	0.656	0.771	0.364	0.381	0.274	0.272	0.067	0.128
	SF-t4	25	0.460	0.796	0.441	0.433	0.217	0.223	0.021	0.093
	SF-t3	26	0.537	0.847	0.439	0.411	0.173	0.149	–0.062	–0.023
	SF-t4	29	0.629	0.801	0.389	0.337	0.385	0.355	0.179	0.229
	SF-t3	30	0.656	0.841	0.350	0.222	0.274	0.259	0.052	0.141
HP-HL	SF-t3	33	0.409	0.687	0.397	0.369	0.228	0.295	–0.024	0.115
	SF-t4	34	0.317	0.784	0.412	0.364	0.268	0.294	0.064	0.107
	SF-t3	37	0.653	0.823	0.370	0.317	0.310	0.321	0.069	0.165
	SF-t4	38	0.614	0.781	0.413	0.389	0.325	0.337	0.089	0.140
	SF-t4	42	0.520	0.546	0.413	0.407	0.297	0.316	0.095	0.123
	SF-t3	43	0.575	0.767	0.325	0.349	0.199	0.251	0.010	0.064
	SF-t3/SF-t4	45	0.727	0.732	0.397	0.434	0.256	0.337	0.060	0.153
		46	0.671	0.550	0.419	0.439	0.246	0.326	0.020	0.105

[a]Results were obtained from three analyses performed separately, for health care (HC-HL) with eight items (1–16), for disease prevention (DP-HL) with eight items (17–31), and for health promotion (HP-HL) with eight items (32–47), and are shown in one column to facilitate comparison.

Table 4. Correlation coefficients for HLS-TR-SF12.

Item no	*On a scale from very easy to very difficult, how easy would you say it is to:*	*Pearson correlation for GEN-HL*	*Pearson correlation for dimension*[a]
1	Find information about symptoms of illnesses that concern you?	0.519	0.631
6	Understand the leaflets that come with your medicine?	0.572	0.663
10	Judge the advantages and disadvantages of different treatment options?	0.638	0.705
15	Call an ambulance in an emergency?	0.497	0.520
18	Find information on how to manage mental health problems like stress or depression?	0.542	0.598
21	Understand health warnings about behavior such as smoking, low physical activity and drinking too much?	0.593	0.677
25	Judge when you need to go to a doctor for a check-up?	0.560	0.675
29	Decide if you should have a flu vaccination?	0.593	0.638
34	Find information on how your neighborhood could be more health-friendly?	0.551	0.623
38	Understand information on food packaging?	0.618	0.685
42	Judge how your housing conditions help you to stay healthy?	0.552	0.674
45	Join a sports club or exercise class if you want to?	0.509	0.648

HLS-TR-SF12: Short Form for the Turkish version of the European Health Literacy Survey Questionnaire.
[a]Results were obtained from three analyses performed separately, for health care (HC-HL) with four items (1–6–10–15), for disease prevention (DP-HL) with four items (18–21–25–29), and for health promotion (HP-HL) with four items (34–38–42–45), and are shown in one column to facilitate comparison.

In Table 3, the selected items for test sets 3 and 4 by re-application of the 4-criteria elimination procedure to the initial subset with 24 items are indicated with SF-t3 and SF-t4.

The initial subset with 24 items had a high correlation ($r = 0.973$) with the full form of HLS-TR-47, and similar correlation coefficients were obtained between HLS-TR-47 and SF-t1 ($r = 0.924$), SF-t2 ($r = 0.957$), SF-t3 ($r = 0.914$), and SF-t4 ($r = 0.941$). According to the linear regression analysis, the initial subset with 24 items explained 94.7% of the variance of HLS-TR-47, while SF-t1 explained 85.4%, SF-t2 91.6%, SF-t3 83.5%, and SF-t4 88.5%. The SF-t2 had the highest explanation ratio (91.6%), which is 96.7% of the explanation ratio of the initial subset with 24 items, with a difference of only 0.031. In line with these results, SF-t2 was selected as the most suitable short form for the HLS-TR-47 (HLS-TR-SF12).

Validation process of the HLS-TR-SF12

The HLS-TR-SF12 total and index scores were calculated using the approach suggested by the HLS-EU Consortium (6,8,10). There were significant correlations with a satisfactory level between GEN-HL and HC-HL ($r = 0.802$), DP-HL ($r = 0.803$), and HP-HL ($r = 0.769$) dimensions. All of the items showed item-scale convergent validity with a satisfactory level, and correlation coefficients with GEN-HL ranged between 0.497 and 0.638. For each dimension, correlation coefficients were obtained between 0.520 and 0.705 for HC-HL, between 0.598 and 0.677 for DP-HL, and 0.623 and 0.685 for HP-HL (Table 4).

The internal consistency of HLS-TR-SF12 was satisfactory, with Cronbach's alpha values of 0.792 for GEN-HL, 0.521 for HC-HL, 0.613 for DP-HL, and 0.631 for HP-HL.

The correlation coefficients were 0.961, 0.865, 0.898 and 0.872, between HLS-TR-SF12 and HLS-TR-47, in terms of GEN-HL, HC-HL, DP-HL and HP-HL scores, respectively, and indicated satisfactory criterion-related validity. In terms of variances, 92.4% of the variance of the HLS-TR-47 was explained by the HLS-TR-SF12, while these ratios in

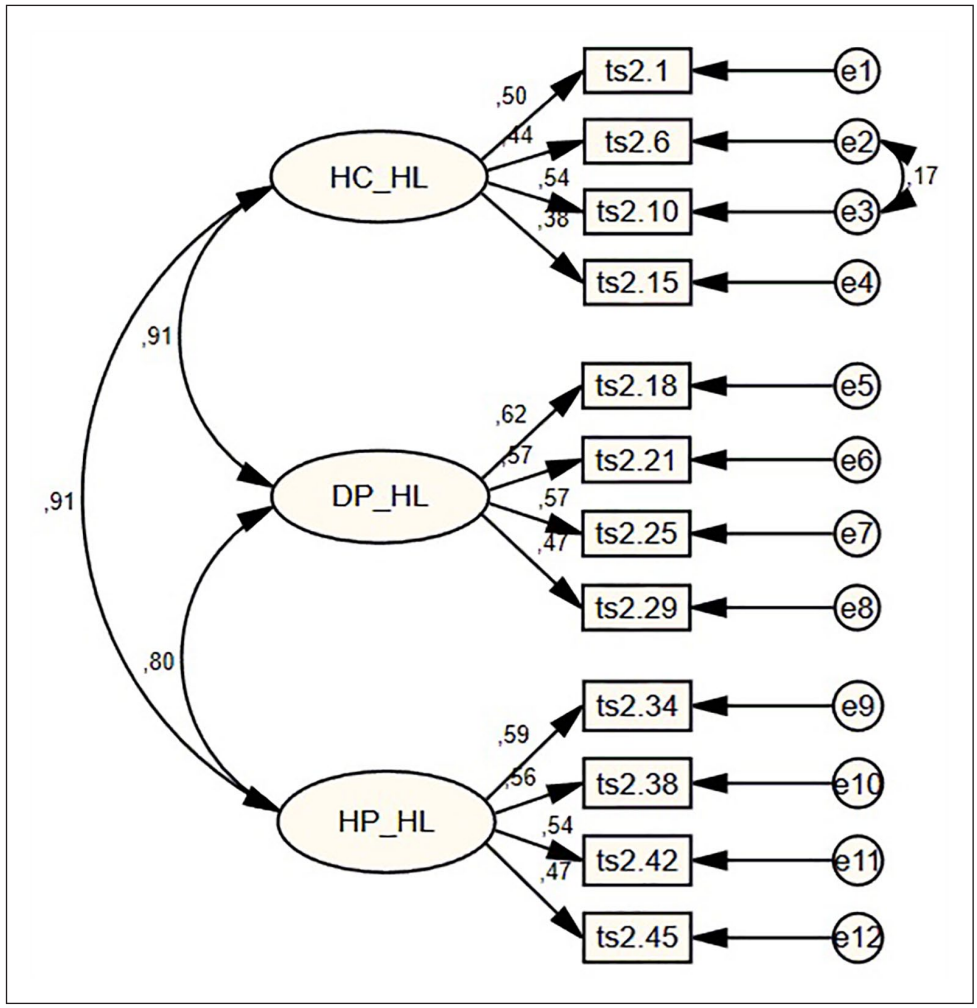

Figure 1. Structural equation modelling of HLS-TR-SF12.

each dimension were 0.748 for HC-HL, 0.806 for DP-HL, and 0.760 for HP-HL.

The model shows a good fit with $\chi^2/df = 1.87$ (<3), RMSEA = 0.043 (<0.05), and RMR = 0.023 (<0.05). In addition, CFI = 0.953, NFI = 0.906, GFI = 0.969, and AGFI = 0.952 indices were close to 1, indicating that the model had a good fit. When the model fit indices were evaluated in a combined way, it can be said that the CFA model was generally in good agreement. There were significantly strong correlations between the three HL dimensions HC-HL, DP-HL, and HP-HL with values from 0.80 to 0.91 (Figure 1).

Discussion

One of the basic concepts used to measure health-related information, which is particularly important and necessary for individuals to protect and improve their own health, and also affects general public health, is HL, which was introduced by the HLS-EU Consortium (2,3,10). An insufficient level of HL may result in an individual not being able to understand and interpret well the information given about their own health status or disease, and not being able to adapt to the treatment process. Especially in the fight against regional and even global health problems, the

HL of individuals will be decisive in many issues such as the level of information to be given and how and through which channels it should be given. In the study by Levin-Zamir *et al.* (20), where they report the opportunities and challenges faced in terms of health promotion and health policies during the COVID-19 pandemic, they also emphasize the importance of focusing on HL, international and interdisciplinary collaboration. They also highlighted that, as HL and health promotion are interdisciplinary fields, required actions in health promotion to build best practices and resource investment are relevant at all levels of the society, from individual to policy (20). Therefore, measuring the level of HL and developing it by taking the necessary precautions will benefit policy makers in many issues such as strengthening the self-management skills of individuals on general health status and diseases, changing their behaviours, and increasing their compliance with treatment and processes of fighting against health problems (3–5).

In this study, we suggest a short form of the Turkish version of the HLS-EU-Q47 questionnaire, HLS-TR-SF12, which can be used to measure and evaluate health literacy in Turkey, based on the concept determined by the HLS-EU Consortium. This is significant because health policy makers and health care providers need to evaluate the HL level rapidly, as well as accurately, to be able to make more effective interventions and improve health conditions. It is also important to consider the time required to complete the questionnaire. A long form can cause confusion or inattention in respondents, which can directly affect accuracy. A form that is completed in a shorter time with a similar accuracy is preferred. In this respect, the short form suggested in this study includes 12 items, and the variance explaining ratio is 92.4% of the full form, including 47 items, in independent data for validation. We show that the short form suggested in this study can be used as a valid and reliable tool to measure HL in Turkey, adhering to the concept of HL by the HLS-EU Consortium.

The HLS-EU Consortium also developed the HLS-EU-Q6 and HLS-EU-Q16 short forms intended to measure HL rapidly, adhering to the concept of the full form HLS-EU-Q47 as much as possible (6,21). In addition to studies aimed at translating HLS-EU-Q6 and HLS-EU-Q16 into other languages, studies have attempted to develop short forms of HLS-EU-Q47. Both HLS-EU-Q6 and HLS-EU-Q16 were translated into French (22) and Italian (23), and the Icelandic version of HLS-EU-Q16 was also suggested (24).

A short form called HLS-SF-12 was developed by analysing the data from the authors' own study in Taiwan (25) using PCA (26). Another short form, HLS-Q12, was developed in Norway using Rasch modelling and CFA (27). In a study conducted in Indonesia, a 10-item model was proposed as a short Indonesian version of HLS-EU-Q47, called HLS-EU-SQ10-IDN (28). A study conducted in Malaysia yielded a short form including 18 items, HLS-M-Q18, using CFA directly without EFA (29). In our study, we conducted both EFA and CFA for both the development and validation datasets, and the whole scale and its dimensions were considered separately in each analysis. In addition, four alternative test sets were selected and compared.

In our study, PCA was used in the developing phase and structural equation modelling was used to conduct a CFA to validate the short form, similar to the study conducted in Asian countries (26), as well as studies in Norway (27) and Malaysia (29). The results revealed that a 12-item questionnaire, HLS-TR-SF12, showed satisfactory fit indices and was a valid and reliable measurement tool for measuring HL in Turkey, based on the HLS-EU-Q47 model.

As it is desirable and recommended that a short form reflects psychometric properties and a conceptual model of the full form, it is important to determine whether all dimensions of HLS-EU-Q47 are covered and the 12 sub-dimensions are represented equally. Among the short forms mentioned above, only HLS-SF12 (26) and HLS-TR-SF12 included one item from each of the 12 sub-dimensions.

Cronbach's alpha values for the HLS-EU-Q6 and HLS-EU-Q16 were found to be 0.83 and 0.81, respectively, in a French study (22), while values of 0.67, 0.77, and 0.79 were found for HLS-EU-Q6, GEN-HL, and HLS-EU-Q16, respectively, for Italian versions (23). The Cronbach's alpha of the Icelandic version of the HLS-EU-Q16 was 0.88, and for the four components indicated in the same study, the Cronbach's alpha values were found between 0.73 and 0.85 (24). Cronbach's alpha values of HLS-SF12 were changed between 0.49 and 0.81 for HC-HL, DP-HL and HP-HL dimensions, and 0.79 to 0.90 for GEN-HL, according to the six countries

(26). In our study, Cronbach's alpha values for the HC-HL, DP-HL and HP-HL dimensions vary between 0.61 and 0.79, and for the GEN-HL of HLS-TR-SF12 scale the Cronbach's alpha value was calculated as 0.79, while these values were obtained as 0.82 to 0.91 for the whole scale. The main reason for the differences in Cronbach's alpha values for short forms with different numbers of items and/or used in different countries is that the numbers of items in the scale are different from each other, as well as the use of different items, even if the number of items is the same.

In the HLS-SF12 study, correlation coefficients of items ranged from 0.59 to 0.80 in terms of item-scale convergent validity (26). Another study conducted in Vietnam for validation of the HLS-SF12 found the correlations of 12 items ranging from 0.49 to 0.64 with overall HLS-SF12 scale. The item-scale correlations in each of the three dimensions were found as 0.66 to 0.74 for HC-HL, 0.62 to 0.73 for DP-HL, and 0.63 to 0.73 for HP-HL (30). The correlation of each item with its own dimensions ranged from 0.414 to 0.734 in the Malaysian study (29). In our study, the correlation coefficients of items varied between 0.520 and 0.705 for its dimension, and 0.497 to 0.638 for GEN-HL.

The correlation coefficients between the HLS-EU-Q6 and HLS-EU-Q16 were found to be 0.88 (22), and 0.86, respectively (23). The correlation of the GEN-HL index with HLS-EU-Q6 and HLS-EU-Q16 was 0.881 and 0.856, respectively (23). In a validation study of HLS-SF12, correlations were found ranging from 0.71 to 0.96 among the three HL dimensions of HC-HL, DP-HL, and HP-HL (30). The correlations were found as 0.81, 0.83 and 0.71 for HC-HL and DP-HL, DP-HL and HP-HL, and HC-HL and HP-HL, respectively, for the HLS-Q12, and subscale correlation of HLS-Q12 and HLS-SF12 were stated as 0.80 and 0.87, respectively (27). In our study, the correlation coefficient of HLS-TR-SF12 with HLS-TR-47 was 0.957 in the development dataset and 0.961 in the validation dataset. There were significant correlations with satisfactory levels between the GEN-HL, HC-HL, DP-HL, and HP-HL dimensions of 0.802, 0.803, and 0.769, respectively. The correlation coefficients between HLS-TR-SF12 and HLS-TR-47 in terms of the HC-HL, DP-HL, and HP-HL dimensions were 0.865, 0.898, and 0.872, respectively.

In terms of variances, HLS-SF12 explained 94% of the variance in the full form (26). The ratios from other studies are given in different manners, 0.90% and 0.91% in terms of common variances of HLS-Q12 and HLS-SF12 (27), and 90.64%, 88.67%, and 90.31% as accuracy rates for HLS-EU-Q16, HLS-SF12, and HLS-EU-SQ10-IDN, respectively (28). In our study, these ratios in each dimension were 0.748 for HC-HL, 0.806 for DP-HL, and 0.760 for HP-HL, in terms of explaining the ratio of HLS-TR-47 to HLS-TR-SF12. In terms of GEN-HL, HLS-TR-SF12 explained 91.6% and 92.4% of the variance of HLS-TR-47, respectively, in the analyses of the development and validation datasets.

Limitations

The major limitation of our study was that the development and validation processes were based on data obtained from university students. Therefore, using the short form suggested for the general population may not be appropriate, or may yield misleading results. However, as university students mostly come from different provinces of the country and have, for example, diverse cultural structures, socio-economic status, and education levels of families, we thought that these data would be better in terms of representativeness owing to their heterogeneous structure. Further studies are necessary to validate HLS-TR-SF12 in different datasets for the general population.

Conclusion

A short form of HLS-TR-47 called HLS-TR-SF12 including 12 items was developed in this study by selecting the highest factor loading and standardized regression coefficients using PCA and regression analysis for data collected in Turkey. Both HLS-TR-SF12 and its three dimensions (HC-HL, DP-HL, and HP-HL) were strongly correlated with the HLS-TR-47 and its three dimensions. Additionally, 91.6% of the variance of HLS-TR-47 can be explained by HLS-TR-SF12 in the development stage, while this ratio was 92.4% in the validation process. According to the results of CFA, the model was found to be significant and showed a good fit. These results revealed that the HLS-TR-SF12 is a valid and reliable tool for measuring HL expressed by studies developing the HLS-EU-Q47 and translating it into Turkish as

HLS-TR-47. As the HLS-TR-SF12 includes one item from each of the 12 sub-dimensions covered in its full form, we think that it could be used as a useful short form to measure and evaluate HL easily, quickly, and accurately in Turkey. Thus, a short and quick tool is provided not only for health policy makers and health care providers but also for researchers who want to investigate HL in their region and make national and/or international comparisons.

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Dismantling the status quo: promoting policies for health, well-being and equity: an IUHPE2022 prelude

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Abstract: The next international gathering of the global health promotion family will be in Montreal, in May 2022. The 24th IUHPE conference is themed 'Promoting policies for health, well-being and equity'. Conference organizers have decided to transcend the 'usual suspects' rhetoric and frame a conference program that truly challenges these key notions for health promotion. In this contribution, members of the Canadian National and Global Scientific Committees reflect on the state of play and the opportunities ahead. We propose three themes as follows: (a) breaking news (the promise and opportunities for disruptions and tipping points, whether from pandemic health challenges, climate change, geopolitical shifts, social unrest or technological promise); (b) breaking free (from world-views that favor only market solutions, divisions between North and South, toward emancipatory decolonizing practices and knowledge systems); and (c) breaking through (disciplines, silos, boundaries and identities engrained in our practices and understandings for innovation.)

Keywords: advocacy (including media advocacy), collaboration/partnerships, determinants of health, empowerment/power, equity/social justice, global health/globalization, health promotion

Health promotion as a field of practice and scholarship continues to evolve. As a global movement, the health promotion community embraces many voices. There is a challenge, however, in continuing to strike a balance between elegant and advanced techniques and approaches on the one hand, and hands-on and often acute health issues on the other. Global conferences of the International Union of Health Promotion and Education have – most of the time – successfully walked this fine line.

The next international gathering of the global health promotion family will be in Montreal, in May 2022. The 24th IUHPE conference is themed 'Promoting policies for health, well-being and equity'. Conference organizers have decided to transcend the 'usual suspects' rhetoric of striving for equity in health (through discussions, for example, of issues such as the Social Determinants of Health, and Health in All Policies), to instead look to the root causes of health inequities and their structural

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determinants, including those that are political, economic, environmental, cultural and social. The IUHPE2022 scientific committees are framing a conference program that truly challenges the foundations and directions for policy with regard to health, well-being and equity for health promotion. In this contribution, members of the Canadian National and Global Scientific Committees reflect on the state of play and the opportunities ahead.

Health promotion remains '... the process of enabling individuals, groups and communities to increase control over, and to improve, the determinants of their health. To reach a state of complete physical, mental and social well-being, an individual or group must be able to identify and to realize aspirations, to satisfy needs, and to change or cope with the environment' (1). Our community positions itself as a positive social movement; one that engages with optimistic views of what determines human and ecological, indeed planetary, health and well-being. We also strive for social justice and the reduction of all inequities (social, ecological, cultural, or by any other parameter) that adversely influence health.

As we write this commentary, however, coronavirus disease 2019 (COVID-19) is wreaking havoc on populations and economies, revealing not just our fragility in the face of new infectious diseases, but also how much climate change, systemic social and racial inequities, and the failures of our political and economic systems have to bear on our collective well-being. This has not just been deemed an epidemic of global proportions (a 'pandemic') but indeed a 'syndemic' – a systemic coalescing of health and social events that exposes critical fault lines across the world (2). Horton, *The Lancet* editor, has justifiably stepped away from the more epidemiologically driven notion of 'syndemic' as originally proposed by Singer (3). The tragedy of the COVID-19 syndemic is not just the inequitable impact of a series of disastrous (clinical) co-morbidities, but also the effect of a world permitting for the deaths of hundreds of thousands in superficially wealthy and powerful nations. The syndemic is also the result of a perverse disregard for large swaths of disadvantaged populations precariously keeping neoliberal economies afloat. It highlights, for instance, that we undervalue and underpay millions of essential workers. We are witnessing the heavy price we pay – environmentally, socially and in health terms – for our high-pressure, competitive economies.

Events such as the murder of George Floyd in the US, the Black Lives Matter movement and the horrific inequitable outcomes of the pandemic on many racialized and socio-economically deprived communities afford time to pause and reflect on the shortcomings of our policy approaches. Whether or not apocryphal, hopeful or cynical, the empirical evidence in the field of policy research is clear: emergencies and disasters inspire change. This notion of significant, limited moments of disruption and potential change emerges from John Kingdon's Multiple Streams work (4), and so-called 'punctuated equilibrium' thinking (5).

We call for a health promotion that pushes the envelope on promoting policies for health, well-being and equity: we want to reflect on how joined-up government and Health in All Policies can be rethought to adequately address the inequities that health promotion seeks to overcome. With the syndemic, and the 70-year history of the field we call health promotion, comes the question: 'what are the contours and pressing issues of the health promotion we aspire to for future generations?'

IUHPE2022 convenors have identified three themes to help us reflect on the current situation of health promotion; what we do well and what we can aspire to better understand, engage in and change.

We have framed these themes as follows:

- Breaking news (the promise and opportunities for disruptions and tipping points, whether from pandemic health challenges, climate change, geopolitical shifts, social unrest or technological promise)
- Breaking free (from world-views that favor only market solutions, divisions between North and South, toward emancipatory decolonizing practices and knowledge systems)
- Breaking through (disciplines, silos, boundaries and identities engrained in our practices and understandings for innovation)

The conversations we aim to have at our conference should be engaging, even artful and full of humor. They should be inspiring, but also challenging. We recognize that the tens of thousands of – individual and institutional, card-carrying or

not – members of the global health promotion community are a diverse lot. What may be challenging to some may be comforting to others. What is standard practice in the South may be radical innovation in the North. This piece intends to set some common ground for us all.

Breaking news: global disruption

While the term 'disruptive innovation' stems from a business theory (6) firmly entrenched in the neoliberal economies that health promotion questions, the term has nonetheless taken on a life of its own, turning the focus around 'turning point' events that re-configure power relationships and the foci of agendas. In a recent series of blogs, the BMJ identified 19 global health disruptors (7). These included ravaging disease outbreaks (AIDS; severe acute respiratory syndrome (SARS); Ebola; non-communicable diseases (NCDs)), very large geopolitical events (the end of the cold war, the Framework Convention on Tobacco Control and the Belt and Road Initiative), shifts of significant prominence (urbanization; migration; climate change), and new actors and phenomena (the medical-industrial complex and the influence of large private/NGO donors).

Today more issues are recognized as disruptors: neoliberalism; Fridays for Future, COVID-19, Wet'suwet'en Strong, Marches for Justice; and Black Lives Matter. There is renewed global attention to (health) equity and its critical pathways, including colonialism and racism. However, health promotion continues to be largely politically and ecologically blind (claiming to be 'value free'), focused almost entirely on individual or interpersonal rather than ecological determinants of health. Health promotion also struggles with meaningfully addressing continuing inequities that dog our societies. While the World Health Organization (WHO) report on the Social Determinants of Health (8) paved a path for focusing on inequities in power in order to overcome social inequities in health, we need new, better and impactful ways to address these issues through research, practice and policy.

We see 'Social Determinants' starting to take the path of 'Alma Ata Primary Health Care'. Mills (9) actually predicted the patterns we have witnessed over the last decades: rather than politically engaging community assets for better primary health (which was the very intent of the Declaration), a technocratic and medical-clinical casting of the theory and practice of primary health seems to have taken it away from the people. The Social Determinants approaches are becoming technocratically dominated exercises with emphases on metrics and economic accountabilities, whereas the core intent of the program was – and remains – a socio-political one. The same seems to happen to the emancipatory potential of the Sustainable Development Goals (SDGs). These disruptions also offer opportunities of entrenchment of current systems, as previous food disruptions prior to COVID-19 have resulted in the proliferation of industrial production and trade, instead of food sovereignty (10). This makes it even more important than anticipated to organize against such entrenchment of systems that negatively shape human health. The framing of the above disruptors has turned the magnifying glass onto the relationships between these various events: connections made between the climate crisis, rights of Indigenous peoples, wealth concentration and racialized violence. The events themselves are disruptors, but we may fail to recognize that the connections between the events may be even more disrupting and require policies that cut across (or connect) disruptors.

This may be the perfect wave for (surf loving?) health promoters. It allows us to help connect the dots between these issues and turn the spotlight onto health and well-being in all policies. The disruptors identified in the BMJ piece have and will shape what global health governance does (from epidemics to climate-change refugees), how (from vaccination campaigns to commercial trade agreements) and with whom (from traditional state actors to private foundations and social movements). Yet global change and governance have local and community dimensions – and the engagement between levels and jurisdictions is critical for the identification of systems (i.e., policy and institutional) change. For instance, cities (should) aim to redesign their built environment to improve the air quality, walkability, housing, thermal comfort and sociability for all, and especially for those who live with the consequences of accumulating inequity. States (should) seek ways to improve access to health and social care for the most deprived. Health and well-being are the glue that help connect the dots between disruptors as they all translate into worsened health outcomes and increased health inequities. For health

promoters this means building more health, well-being and equity into other policies, by engaging with actors who have different problems at heart, like environmental stakeholders, urban planners, social activists, infrastructure industries, etc. The conference will provide ample opportunity to learn how health promoters have worked with dedicated professionals from different policy areas. In fact – the conference may show that health promotion can very well live outside the realm of the health sector altogether.

Breaking free: decolonizing our health practices, systems, research and policy

The second sub-theme offers alternative ways of thinking about and working in health promotion, and follows from the 2019 *Waiora – Indigenous Peoples' Statement for Planetary Health and Sustainable Development*. This statement, developed at our last world conference, called on the global health promotion communities to make space for, and privilege Indigenous peoples' voices and knowledge in taking action to heal our relationship with all beings of Mother Earth and focus on sustainable development. Centuries of empire-building expansion have created systems and institutions that shape widespread, systemic and on-going economic, social and health injustice. In particular, Indigenous peoples around the world continue to suffer disproportionately – culture, family ties, sustainability, ecology and knowledge systems have been deliberately and clandestinely destroyed. Health inequities are therefore products of long-term, systematic oppression of Indigenous peoples and their ways of knowing (including their ways of promoting health).

Yet decolonizing health promotion extends beyond a unique focus on Indigenous peoples. It requires creating spaces for different epistemological traditions that frame the way we see the world, the way we organize ourselves in it, the questions we ask and the solutions we seek. As we integrate other epistemologies, we recognize the importance of meaningfully working together with those who have often been 'the studied' to engage in the research for everyone's benefit using participatory and community-controlled research approaches. Such participatory approaches require us to reflect on our positionality in research and reflect on ways that we can elevate community voices, needs and priorities as allies (11). *Waiora* also helps us understand some of the problems with the current neoliberal ideology and, more broadly, our capitalist ideology and system that focuses on resource extraction and individual accumulation of wealth, rather than responsibilities and reciprocity.

Erondu *et al*. (12) recently affirmed, when examining a prominent public health institution, that 'Colonial legacies and neo-colonialism — defined by some academics as the practice of reinforcing colonialist practices of control and influence through mostly unconscious actions, behaviors, attitudes and beliefs — are the foundations of a systemic operating model that shapes career opportunities, research partnerships and teaching practices'. This colonial – or 'foreign' (13) – gaze is pervasive and not just an enduring legacy of the imperial ambition of a few Northern white powers. It is more insidious than that, and extends to the dominance of a particular – Cartesian – knowledge system. Mweemba *et al*. (14) demonstrate how the systemic and systematic underrepresentation of the Global South maintains an illusion of colonial superiority – even though 'colonies' as entities are something mostly of the past. 'Decolonisation', therefore, is not merely the recognition of, and apology for, a white capitalist paradigm. It is also about the de-centring of whiteness, using racial equity tools and taking the de-coloniality discourse to the South.

To decolonize health promotion and develop more effective and culturally safe health policies and programs, communities must be meaningfully driving the policy process. True engagement and participation need to be secured. We must challenge the notion that research findings from Western mainstream societies (the Global North) are directly applicable in other contexts. Instead, we must generate knowledge in, with and for Indigenous and minority communities to promote health equity. Research involving Indigenous researchers and community members is needed to bridge and close the divide (15). Such decolonizing research processes show the path to co-create intelligence and shift power dynamics to support profound innovation and radical change. The health promotion toolkit should embrace innovations in Indigenous research methods such as storytelling, Dadirri and Two-Eyed Seeing (16).

Breaking through: emancipatory innovation

In the lead-up to IUHPE2022, the global health promotion community (including IUHPE and other institutions, but also policy makers, activists and critical institutions) needs to identify key innovations with the potential to change ways of thinking about problems and their solutions. We need to start identifying the individuals, communities and their networks that can drive change – at policy and systems levels. Innovation often starts small and takes time to diffuse. Its success, however, comes about through networking for its discovery, acknowledgment and dissemination. IUHPE2022 must allow this.

Old innovations (such as Artificial Intelligence) must be refreshed with a potent health promotion, well-being and equity lens (such as embracing the Montreal Declaration for a responsible development of Artificial Intelligence (17) at IUHPE2022). Similarly, the mobilization of social movements for equity and well-being is already part of our repertoire. Whether we always do this well, or accountably, is worth critical examination. Global (social media) networking and engagement create new opportunities for more, if not all, voices to be heard. Inspired leadership and 'Learning by Doing' (18) must become integral to policy change.

Another field of innovation in health promotion is a more significant and deliberate framing of power systems and interests that drive the maintenance of ways of working, doing and arranging the 'who gets what, why and when' matters of the political game. This is the very essence of health promotion, and apart from some persistent ideologues on the fringe, our movement has been unable to integrate novel ideas such as econology (19), the consucracy (20), transformative intergenerational change and polarizing value systems in a strong action agenda.

We break (news; free; and through) in different ways and invite you to come together on the Haudenosaunee/Anishinaabe traditional territory of Tiohtià:ke (Montreal) in May, 2022. The disruption of the syndemic has created opportunities for a hybrid (in-person and virtual) conference that allows for many more voices to be heard and more minds to be brought together. Help us to continue fruitful disruptions, decolonize our joint global commons, and innovate for better health, well-being and equity. We invite health promoters, communities, activists, scholars and, most importantly, policy operators to help transform our world for the benefit of all Nations and all our relations with Mother Earth.

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The critical role of health promotion for effective universal health coverage

Trevor Shilton[1] and Margaret M. Barry[2]

Abstract: The Political Declaration from the United Nations High-Level Meeting on Universal Health Coverage: Moving Together to Build a Healthier World (2019) provided important reaffirmation of health as a precondition for sustainable development and equity, as well as of the role for primary care as a cornerstone of universal health coverage. Health promotion, prevention and sustainable healthcare go hand in glove. Health promotion can enable more effective use of health resources by reducing demand for expensive health services and reducing hospital admissions. Promoting mental and physical health, and addressing health literacy and the social determinants of health, enables governments and departments of health to (i) empower citizens and communities to take control of their health, and (ii) better support innovative and financially sustainable healthcare. Without the bedrock underpinning of effective health promotion, treasuries and health systems will struggle to meet the rising costs and burden of ill health.

Keywords: Health promotion, universal health coverage, systems

The High-Level Meeting on Universal Health Coverage: Moving Together to Build a Healthier World was held at the United Nations (UN) headquarters in New York City on 23 September 2019. This meeting and the subsequent Political Declaration (1) provided important reaffirmation of health as a precondition for sustainable development and equity. Forty years after the historic Declaration of Alma Ata (2), heads of state recommitted to primary care as a cornerstone of universal health coverage (UHC).

For the health promotion movement and for the International Union for Health Promotion and Education (IUHPE), the UN High-Level Meeting afforded the opportunity to advocate for the critical role of health promotion for effective UHC and for sustainable development (3). The Declaration is complimentary to existing IUHPE positions on health promotion systems as a support for noncommunicable disease (NCD) prevention and control (4), health literacy (5) and on the social determinants of health (6).

Health promotion and 'health for all' are essential components of UHC, to promote and protect people's health and wellbeing, leaving no one behind. Therefore, equitable access to health services and reducing the impoverishment associated with payment for health services are important human rights. Health promoting health systems can also help ensure delivery of policies, programs and environments that support better health for all, and in particular to support the vulnerable and disadvantaged. Health promotion, prevention and sustainable healthcare go hand in glove. Health promotion can enable more effective use of health resources by reducing demand for expensive health services and reducing hospital admissions (7). NCDs alone represent 63% of all annual deaths, with 80% of these deaths occurring in low- to middle-income countries (8), and many of these conditions are preventable (9,10,11).

Promoting mental and physical health, addressing health literacy and the social determinants of health, enables governments and departments of health to

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empower citizens and communities to take control of their health, and better support innovative and financially sustainable healthcare. Without the bedrock underpinning of effective health promotion, treasuries and health systems will struggle to meet the rising costs and burden of ill health, including NCDs and mental health problems (12,13). These problems will be further exacerbated by accelerating urbanisation and the ageing of communities (14).

The most effective and sustainable interventions for ensuring healthy lives and reducing the risks of poor mental and physical health are health promotion measures. Cost-effective and feasible health promotion interventions have been shown to make a real difference in improving population health, improving mental health, increasing health literacy, reducing risk of NCDs, and addressing the social determinants of health and health equity. Many examples of sustainable, effective and broad-reach health promotion interventions are outlined in the World Health Organization's (WHO) *Best Buys and other Recommended Interventions for the Prevention and Control of Non-Communicable Diseases* (10). Furthermore, significant cost savings and health gains are possible from implementation of these initiatives. Economic analysis that provides insight into the financing needs and cost-benefits of investing in health promotion is a vital asset for advocates. For example, WHO's analysis of cost-effective and feasible 'best buy' (11) policies to protect people from NCDs indicates that:

- A 15% reduction in premature mortality could be achieved by 2030 by implementing the WHO Best Buys,
- Implementation of these Best Buys in low- and middle-income countries can be achieved at a cost of only US$1.27 per person per year,
- Every US$1 invested in the WHO Best Buys will yield a return of at least US$7 by 2030,
- Implementing the WHO Best Buys will prevent over 17 million cases of ischaemic heart disease and stroke by 2030 in low- and lower-middle-income countries, and
- 8.2 million lives can be saved by 2030 in low- and lower-middle-income countries by implementing the WHO Best Buys (15).

The goal of ensuring that all human beings can have healthy lives and maximise their health potential calls for concerted action on health promotion, primary prevention and primary care as integral and integrated components of an effective health system. This also shines a light on the vital role of health promotion in primary care. Strengthening health promotion within primary care is an effective and efficient means of enhancing people's mental and physical health and ensuring their social wellbeing across the life course. Conversely, a narrow or sole focus on disease-oriented healthcare and treatment is unsustainable financially and will not achieve the necessary improvements in population health (16).

Closing the health equity gap calls for more comprehensive action at the community level, as well as at whole-of-government levels and with meaningful engagement of civil society (16). The broad determinants of health can be addressed by mainstreaming a Health in All Policies approach (17). This requires intersectoral actions to create supportive policies and environments that will protect and promote people's health and wellbeing, reduce exposure to risk factors, and empower individuals, families and communities in optimising their health and wellbeing (18).

There is an urgent need to move beyond the mere rhetoric of health promotion towards concrete action and strengthening the capacity of countries to implement health promotion at a political and policy level. The IUHPE argues that reorienting health systems to focus more on health promotion, prevention and primary healthcare, as advocated in the Ottawa Charter (19), is the most effective and sustainable way to achieve national health goals and targets, and reduce the escalating burden of preventable diseases and mental illness on healthcare systems and treasuries. This entails strengthening implementation systems for health promotion and mobilising political commitment for the creation of enabling policy structures and processes for comprehensive health promotion practices at a country level (20).

The IUHPE has previously published its position on the system requirements for health promotion to effectively implement broad global health commitments such as reducing the burden of NCDs, promoting better mental and physical health and expansion of UHC. Following the 2019 UN High-Level meeting, the IUHPE proposed 10 system requirements to achieve a sustainable health system

and, therefore, contribute to enabling UHC (4). These can be summarised as follows:

- Political and policy requirements:
  - including real political commitment to effective health promotion policies and to well-funded action plans.
- Enabler requirements, which ensure:
  - well-supported and dedicated health promotion institutions;
  - high-level health promotion leadership;
  - a competent workforce;
  - allocation of sustainable financing to support implementation, monitoring and evaluation.
- Implementation requirements:
  - that support comprehensive health promotion initiatives, including bold policies, fiscal measures, environmental changes, health literacy programmes and resourcing of the 'best' and 'good' buys for health promotion and NCD interventions (4,21).

Further to these, the IUHPE seeks to develop and implement an audit tool to enable organisations to monitor their progress in meeting the IUHPE system requirements for health promotion. This important audit can inform further investment by governments and agencies in service and system gaps and help them determine priorities to advance health promotion.

The delivery of UHC and the implementation of the UN 2030 Agenda for Sustainable Development (22) calls for concerted action at all levels of government and civil society. It requires investment in developing and scaling-up transformative health promotion actions that will deliver on population health improvement, reduce health inequities, and enhance wellbeing and sustainable development for all. Progress is needed in effectively integrating health promotion within health systems and strengthening the capacity of countries to implement health promotion at a political, policy and service delivery level.

Delivering on UHC and meeting the ambitious targets of the Sustainable Development Goals (SDGs) means moving beyond a focus on curative healthcare to also embrace health promotion and primary prevention interventions that will address the broader determinants of health and place empowered citizens at the centre of their own health and wellbeing. The IUHPE, through its global network of members, provides technical guidance and support to countries on health promotion capacity development and implementation strategies that will strengthen the quality of health promotion practice.

The complexity of current threats to health and wellbeing, combined with ambitious SDGs, means that action is urgently required to make measurable progress. It is now imperative that countries and regions take immediate action to strengthen their health promotion systems. This is necessary to meet the health challenges of our time.

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The COVID-19 and lifestyle nexus: settling the debate

Sathyanarayanan Doraiswamy, Sohaila Cheema and Ravinder Mamtani

Abstract: A recent debate that has gained our attention is that of coronavirus disease 2019 (COVID-19) being referred to as a lifestyle disease by the Royal College of General Practitioners (in the title of an online event) for which they later apologized and withdrew the reference. In this commentary, we demystify diseases related to 'lifestyle' and put this in the context of the age-old public health way of classifying diseases as communicable and non-communicable (NCDs). Evidence indicates that unhealthy lifestyles, in addition to causing NCDs, can also result in reduced immunity and/or cause injury to organs predisposing individuals to diseases, and their severity, traditionally defined as 'communicable' such as COVID-19. COVID-19 has demonstrated the nexus between communicable and NCDs as never before in no uncertain terms. Two important messages that have emerged from the pandemic are: (1) there is close proximity of communicable diseases to NCDs; and (2) individual personal hygiene-related lifestyles can influence the occurrence, severity and prevention of communicable diseases such as COVID-19.

Keywords: COVID-19, communicable diseases, non-communicable diseases, lifestyle-related diseases, lifestyle factors

Introduction

The coronavirus disease 2019 (COVID-19) pandemic experience has been unusual and unsettling, dissimilar to any other crisis situation before. Uncertainties surrounding the management of the pandemic have not only generated controversies but also encouraged healthy debates among the scientific community. One such debate that has gained our attention is that of coronavirus disease 2019 (COVID-19) being referred to as a lifestyle disease by the Royal College of General Practitioners (in the title of an online event) resulting in serious backlash from several general practitioners in the United Kingdom (1). This led the conference organizers to apologize for this 'mistake' and withdraw the reference to COVID-19 as a lifestyle disease. In this commentary, we demystify diseases related to 'lifestyle' and put this in the context of the age-old public health way of classifying diseases as communicable and non-communicable.

Defining communicable and non-communicable diseases

The public health world simply polarizes diseases as communicable and non-communicable to suit the ease of stratifying prevention measures (2).

Communicable (or infectious) diseases occur primarily due to the transmission of a specific infectious agent (or its toxic products) from an infected person, animal or inanimate source to a susceptible host, either directly or indirectly (3). Many diseases in this group are usually associated with poverty and poor living conditions. Where as, *non-communicable diseases (NCDs)*, also known as chronic diseases, of longer duration, are

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associated with a combination of genetic, physiological, environmental and behavioural factors (4). These diseases are sometimes considered as diseases of affluence.

However, this classification and water-tight definitions do not hold water as we continue to see increasing evidence about the role of infections in the emergence of NCDs (5). The chronic nature of hepatitis B and HIV infections causing cancers are cases in point. These and other chronic infections play a direct role in the pathogenesis of many NCDs. Consequently, many public health experts disagree with this classification and argue that NCDs can be aetiologically linked to communicable diseases (2,6). Also, social determinants of poor health and risky behaviours such as loneliness, social isolation and lack of access to basic care should be considered as vectors of communicability and a proposition that such diseases should be referred to as socially transmitted diseases (7). Also to consider in the transmission of NCDs is the concept of intergenerational transmission, where parents' decisions may influence the modifiable risk factors of NCDs such as unhealthy diet, physical inactivity and secondhand smoking among their offspring (8). Moreover, the term NCDs could undermine efforts to urgently address and/or deflect attention from pursuing system-wide effective interventions for these diseases (6).

Lifestyle-related diseases

Amidst prevailing inconsistencies in disease classification, the significance of positioning 'lifestyle' and lifestyle-related disease cannot be overstated. Simply put, lifestyle 'includes day-to-day behaviours and functions of individuals' job, activities, fun and diet' (9). A healthy lifestyle according to the American College of Lifestyle Medicine includes eating a predominantly plant-based diet, being physically active, sleeping well, managing stress optimally, remaining socially connected and refraining from the use of tobacco, alcohol and other harmful substances (10). *Lifestyle-related diseases (LRDs)* by definition are diseases where the pathophysiology (possibly mediated by chronic inflammation) is significantly influenced by one's lifestyle and where lifestyle change can remarkably halt disease progression and even help in its reversal (11).

Evidence indicates that unhealthy lifestyles can result in reduced immunity (e.g. among chronically stressed individuals and those who suffer from insomnia) and/or cause injury to organs (e.g. among smokers) predisposing individuals to diseases traditionally defined as 'communicable' such as COVID-19 (12). Lifestyles associated with poor hygiene practices can lead to serious respiratory infections such as COVID-19, and other food- and water-borne illnesses. However, these diseases are not considered lifestyle related within the context of the existing definition as there is nothing to suggest that lifestyles are directly influencing their pathophysiology but rather predisposing. Definitions aside, it is apparent that lifestyle factors can: (a) predispose to communicable diseases and their severe manifestations; (b) directly lead to LRDs, a subset of NCDs; and (c) influence both communicable and non-communicable disease outcomes.

Role of inflammation in lifestyle, communicable diseases and NCDs

The ability of infectious agents to induce and sustain chronic inflammation in the host is determined to be the primary mechanism in the infectious aetiology of NCDs. Such chronic inflammation triggered by communicable diseases has been shown to be a feature of NCDs, examples of which include peptic ulcer disease, certain cancers and chronic obstructive pulmonary disease (5). Obesity is also known to trigger a chronic low-grade inflammation due to constant cytokine and adipokine secretion from the adipose tissues (13). This pro-inflammatory state predisposes individuals to 'thrombosis, incoordination of innate and adaptive immune responses, inadequate antibody response, and cytokine storm' (14) – also highly relevant in the context of a disease such as COVID-19. Poor lifestyle-related habits, particularly excessive eating and physical inactivity can lead to obesity, thus contributing to a greater risk of both communicable diseases and NCDs (14).

COVID-19: the lifestyle nexus between communicable diseases and NCDs

COVID-19 has demonstrated the nexus between communicable and NCDs as never before and in no uncertain terms. It is now well documented that

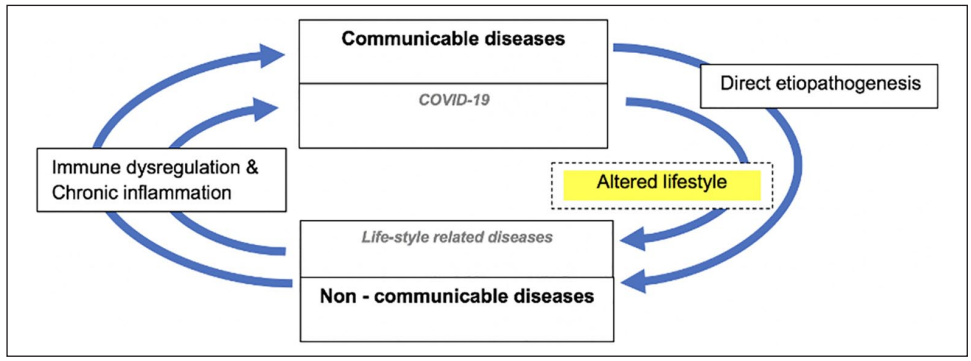

Figure 1. The lifestyle nexus between communicable diseases and NCDs.

individuals with diabetes, hypertension, cardiovascular diseases, respiratory ailments, malignancies and chronic renal failure have a higher predisposition for severe COVID-19 (15). A large study from the United Kingdom consisting of 387,109 men and women on lifestyle-related risk factors for COVID-19 concluded that physical inactivity, obesity and smoking together accounted for 51% of the population attributable fraction of severe COVID-19 (16). Also, emerging data is beginning to show that the risk of COVID-19 leading to NCDs such as stroke, mental illness, heart disease and chronic obstructive pulmonary diseases as long-term sequelae is quite substantial (17). This is in addition to the higher mortality COVID-19 causes in patients with pre-exiting morbid conditions such as obesity and cardiovascular diseases (18). The Global Council on Brain Health has also documented the higher predisposition of dementia patients to severe illness from COVID-19. Furthermore, early evidence exists that those affected by long COVID could be at a higher risk of developing dementia later in life (19). This situation is also unique in that, never in the history has there been a debate on whether measures to prevent a communicable disease through drastic lockdown measures could actually predispose individuals to NCDs, examples of which include depression and other mental health disorders (20).

While widespread lockdowns and physical distancing control the spread of the virus, they have the potential to diminish people's reach to nutritious food; widen health inequities; reduce optimal physical activity; exacerbate the anxiety and stress levels of individuals and families; compromise the quantity and quality of sleep; and also encourage substance use to allay their anxiety and fear of disease as shown in some settings (21). Virtual connectedness and the use of social media, though flouted as an alternate to physical connectedness, have not been demonstrated to enhance social cohesiveness. To the contrary, constant social media engagement is shown to be associated with anxiety and depression (22). Emerging data on altered lifestyles is already placing communities at a higher risk of LRDs and hence NCDs globally (23). All these aberrant lifestyle modifications are pointers towards a likely future increase in the burden of NCDs post COVID-19. This aggregation of COVID-19 and the NCDs risk exacerbation of the adverse effects from each disease and hence are best characterized as a 'syndemic' (24). A 'syndemic' is not a new terminology but has been in vogue since medical anthropologist Merill Singer introduced the term in the 1990s to describe converging epidemics in the background of socio-cultural and environmental issues (25). We summarize the nexus between communicable (including COVID-19) and NCDs (including LRDs) and the influence of altered lifestyle in Figure 1.

Preventive measures for communicable diseases and NCDs (including LRDs) in the past have tackled differing predisposing factors and had remained mutually exclusive. Previously, calls have been given for integrating infection control efforts with the control of other known lifestyle factors leading to and influencing NCDs (26). COVID-19, with its novelty, communicability and virulence, and its social and health consequences, provides an opportunity for a bold approach in designing and

implementing integrated prevention and health promotion measures for both communicable diseases and NCDs using the common thread of healthy lifestyles (27). We believe it is not too late for countries to implement measures to actively promote healthy lifestyles along with a combination of infection mitigation measures of physical distancing, and hand and respiratory hygiene. This integrated approach will be beneficial not only for fighting the current pandemic, but also aid in mitigating the growing burden of NCDs, and in lowering the impact of future pandemics and other untoward public health situations.

Promoting healthy lifestyles

There are certain globally accepted standards for a healthy lifestyle to reduce the risk of LRDs. These are having ⩾5 servings of fruit and vegetables a day; engaging in ⩾150 minutes per week of moderate intensity exercise; refraining from sedentary behaviour; maintaining a body mass index of 18.5–24.9; sleeping uninterrupted 7–8 hours a night; increasing positive emotion; quitting smoking; and restricting to low-risk drinking (28). When optimally practised, these factors tend to positively influence an individual's emotional well-being. Remaining socially connected and maintaining healthy relationships is shown to be one of the most important predictors of happiness and longevity of life (29). As we have seen, after an initial call for 'social distancing' to 'flatten the curve' in the COVID-19 response, the mistake was realized, and the call changed to 'physical distancing' (30). COVID-19 provides a great opportunity to create and design environments conducive to good health and embrace healthy lifestyles even during the challenging times of physical distancing and isolation. At the same time, the COVID-19 pandemic is a wakeup call for health and lifestyle practitioners on the role they can play not just in NCD prevention and control, but also in the prevention and control of communicable diseases by promoting hygienic and self-care healthy practices in communities. Scientifically sound information, recommendations, resources and suggestions related to the pillars of lifestyle medicine (healthy eating, physical activity, restorative sleep, avoidance of tobacco/alcohol, stress management, maintaining healthy relationships) that may help health practitioners to support clients and patients maintain a healthy lifestyle during (and after) the COVID-19 crisis has recently been published (31). Several healthy living initiatives aimed at promoting health resilience and quality of life such as the 'Healthy Living for Pandemic Event Protection' (HL - PIVOT) have been developed for implementation (32,33).

We feel lifestyles driven by available personal choices and resources should drive the lifestyle medicine (LM) movement to attain optimal health. Factors that are beyond one's control such as available finances and affordability of housing in healthy environments may limit personal choices for some. However, the availability of LM choices for people in low- and low-middle income nations is ample and may be different from those of high-income nations. While LM follows one set of principles, healthy lifestyle practices can be custom tailored to the needs of individuals and communities. LM cannot and should not follow one size fits all approach.

Conclusion

There is no doubt that the world will not be the same after the COVID-19 pandemic ends. Public health education and healthcare delivery and practices will likely change and adapt as we gather more information and learn new lessons from the pandemic. Two important messages that have emerged from the pandemic are: one, there is a close proximity of communicable diseases to NCDs, and two, individual personal hygiene-related lifestyles can influence the occurrence and prevention of communicable diseases such as COVID-19. The debate should be not whether COVID-19 is a lifestyle-related disease or not, but rather how and what can be done to promote healthy lifestyles as an integrated package of healthcare delivery to effectively counter both communicable and NCDs in a holistic manner.

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A connected community response to COVID-19 in Toronto

Garrett T. Morgan[1], Blake Poland[2], Suzanne F. Jackson[2], Anne Gloger[3], Sarah Luca[3], Norene Lach[2] and Imara Ajani Rolston[2]

Abstract: In this commentary, we describe initial learnings from a community-based research project that explored how the relational space between residents and formal institutions in six marginalised communities in Toronto, Ontario, Canada impacted grassroots responses to the health and psycho-social stresses that were created and amplified by the coronavirus disease 2019 (COVID-19) pandemic. Our research found that grassroots community leaders stepped up to fill the gaps left by Toronto's formal public health and emergency management systems and were essential for mitigating the psycho-social and socioeconomic impacts of the pandemic that exacerbated pre-existing inequities and systemic failures. We suggest that building community resilience in marginalised communities in Toronto can embody health promotion in action where community members, organisational, institutional and government players create the social infrastructure necessary to build on local assets and work together to promote health by strengthening community action, advocating for healthy public policy and creating supportive environments.

Keywords: COVID-19, community resilience, health promotion, connected community approach

Introduction

The coronavirus disease 2019 (COVID-19) pandemic offered an unprecedented natural experiment for studying community resilience in real time. Previous pandemics have demonstrated that while the mobilisation of biomedical interventions and health infrastructure are critical, the social infrastructure of community-led responses plays an equally crucial role in both flattening the curve of communicable illnesses and mitigating the psycho-social and socio-economic impact of a widespread pandemic (1). Formal public health and emergency response systems are not typically oriented to support community resilience building efforts before, during or after shock events, and may instead constrain grassroots capacity and action during moments of crisis. As a result, it often falls to communities themselves to use their own place-based infrastructure and social networks to address community issues that are all too often invisible to formal response systems.

In early summer 2020, the Dalla Lana School of Public Health at the University of Toronto and the Centre for Connected Communities (C3) undertook a community-based research project that explored community-led responses to the first wave of the COVID-19 pandemic in six marginalized communities in the city of Toronto through interviews with 46 grassroots leaders. What we heard in these conversations paints a mixed and high-stakes picture of exacerbated precarity and inequality, unprecedented efforts at mutual aid, and a sense that many municipal and formal organisations had abandoned

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communities. Issues of food security, the digital divide, precarious employment and challenges accessing critical information exacerbated already challenging circumstances for many grassroots leaders in each of the six target communities.

In this commentary, we argue that, consistent with health promotion, a connected community approach (CCA) can centre and amplify the voices, experiences, needs and assets of marginalised communities in their efforts to prepare for, respond to, recover from, regroup and bounce forward after any social, environmental and health crises.

The role of resilient communities in crisis response

Despite calls for increased resilience, there remains little understanding of how community resilience is (a) effectively fostered in ways that are truly inclusive and address issues of marginalization (2); and (b) connected to and supported by formal response systems in ways that reinforce community efforts. Core to community resilience is an emphasis on the ways that grassroots leaders and residents draw upon existing strengths-based networks, relationships and supports to limit the impact of both the pandemic and measures taken to address it (1). Community resilience is a key feature of healthy, vibrant cities and, yet, most of the attention has focussed on resilience at the individual, organisational and social-ecological systems levels, especially during crises (3), rather than on collective community responses.

The task of building community resilience is often left to emergency preparedness, emergency response and 'critical infrastructure' professionals. The literature suggests this top-down approach is often ineffective (4) and antagonistic to the bottom-up community response that is common in the aftermath of shock events. Indeed, retrospective analyses of emergency response recovery in post-Katrina New Orleans (1), the aftermath of Hurricane Sandy (2) and extreme weather events in Appalachia (5) demonstrate the drawbacks of top-down resilience efforts, when not intentionally aligned with grassroots bottom-up responses. Beyond identifying the weaknesses of top-down approaches, these retrospective analyses highlight the need to bring greater attention to equity and the engagement of marginalized communities in resilience building efforts.

It is necessary to acknowledge that community resilience-building policies often use the language of community empowerment and engagement to download both the responsibility and accountability for the effective development and implementation of resilience strategies from state actors to community members themselves (6). The downloading of responsibilities is especially pernicious in the context of the current neoliberal political environment of fiscal constraints and austerity, which often undercut the very capacities and components of communities and individuals that have been shown to support resilience (7,8).

A connected community approach

A CCA is a promising practice to be explored in relation to fostering community resilience. CCA is a set of interconnected principles and practices that support the authentic and meaningful connection of people who want to make a positive impact in their community. A CCA shares some affinities with asset-based community development, complexity theory, systems theory and collective impact (9). A CCA is an approach, not a rigid model, that frames community resilience as an emergent community development process. A CCA focuses on the interface between municipalities, institutions and grassroots community groups and develops the systems and processes that allow citizens and institutions to work together to effectively prepare for, respond to, recover from and bounce-forward after shock events.

The CCA emerged after two decades of community development work by the non-profit East Scarborough Storefront, operating in a marginalised inner suburban neighbourhood in Toronto (10). Storefront staff and partners experimented with a new approach to community development that sought to create a community social fabric that supports people, organisations, and initiatives to thrive (9). In 2012, based on the Storefront's extensive impact on the community it served, staff began the process of articulating what made their approach unique and effective in East Scarborough and to explore ways in which their work could be applied in other communities with similar outcomes; resulting in the articulation of a CCA (9).

A CCA works on multiple levels simultaneously, both horizontally and vertically, to foster social

connectedness to strengthen a community's social fabric (9). It holds that 'intentionally focussing on and strengthening the social connections and networks between and among organisations, these networks can be a catalyst to foment community-based social and economic development' (9, p. 3). By supporting community building from the bottom up and inside out, the approach emphasises the central importance of community connectors or integrators (both individuals and grassroots organisations) that provide anchoring points for social network structures across levels and sectors (9). The idea is to weave together the community-building efforts of institutions and funders, grassroots groups and social service organisations, strengthening social capital, social fabric and, ultimately, the resilience of their community.

CCA and health promotion

Intersectoral collaboration is a key health promotion strategy where '... intersectoral partnerships ... [are] crucial for community-engaged decision making and planning, creating health settings, galvanizing political commitment, resources and infrastructure...' (11, p. 924). To achieve these kinds of intersectoral collaborations, a CCA focusses on the role of community-integrator organisations as coordinating entities between many different sectors and connecting municipalities, institutions and grassroots community members. In addition, community-integrators strengthen community action (another health promotion strategy) by developing the systems and processes that allow citizens and institutions to work together.

Another key connection between CCA and health promotion is the way that a CCA operates in a community as a setting, in a place-based and community-centred way. In *Settings for Health Promotion* (12), settings are identified as opportunities for the collaborative co-creation of healthier environments through changes in policy and practice that are undertaken in deep consultation and dialogue with workers, management and citizens/clients/users. CCA engages local citizens in dialogue with municipal and service provider stakeholders towards solving issues that face their local community and planning for the future.

CCA is health promotion in action, wherein community-focussed players build on their assets to work together and strengthen community action, develop and advocate for healthy public policies, and create supportive environments, aided (and in some cases coordinated) by the consistent presence of a 'community integrator' organisation (sometimes also referred to as a 'community backbone organization'). These community integrator organisations convene spaces for dialogue and co-creation between residents and formal organisational/institutional structures in ways that put community assets, aspirations and voices more consistently at the centre of strategies, planning and action.

CCA in COVID-19

Given the early evidence of the potential of CCAs for fostering community resilience in times of crisis, in July 2020 we launched a community-based research study entitled, Connected Communities in a Time of Physical Distancing (CCPD). We explored how grassroots work in six Toronto communities was helped or hindered by the formal social infrastructure that existed previously to the pandemic. We sought to understand what differences pre-existing social infrastructure, especially those characteristic of the CCA, make to communities' capacities to prepare for, respond to, recover from and regroup after COVID-19, especially as communities interface with formal institutional responses. In particular, we were interested in unpacking: (a) What are the critical preconditions, such as equity and social cohesion, that affect a community's crisis response? (b) What community building efforts were in place prior to the COVID-19 crisis that enabled communities to respond effectively? And (c) In what ways do formalised, top-down responses from municipalities, organisations and institutions, leverage/support or hinder community-based responses to COVID-19?

In this work, we paid particular attention to the responsiveness of local organisations, the city, emergency management, public health and other formal institutional systems through the eyes of grassroots community leaders. We learned that grassroots leaders in all six communities reacted quickly to respond to their neighbours' needs for

food, information and mental health support from the beginning of the pandemic. In some of the communities where the social infrastructure was already in place, grassroots efforts were more supported, connected and resourced (meeting more of the criteria for a CCA), there were more opportunities for a coordinated and collective response as well as support for the grassroots leaders. From the perspective of interviewees, the formalised, top-down responses to the pandemic from the City and service organisations faced many challenges trying to provide food and mental health support services to those in need in a timely way. Grassroots groups and leaders had to step in to fill the gaps.

The CCPD research project showed that, in six racialised low income neighbourhoods, grassroots groups were at the forefront of the pandemic response. This grassroots response helped reach people, provide information, support mental health, food and housing security outside of the formal emergency response strategy. Thus, by intentionally or unintentionally relying on grassroots responses, formal emergency response strategies exacerbated existing inequities and did not recognise the presence of community integrator organisations nor support a community engagement process. From a health promotion perspective, the emergency response systems did not integrate pre-existing collaborations between various service organisations and community organisations and leaders. Based on this work, we hope to advocate for recognition of and support for a CCA as a way to support communities to prepare for, respond to, recover from and bounce forward after major shock events and to integrate community responses in future City of Toronto emergency planning. Other work in progress spearheaded by our team describes in greater detail what a CCA is and how it fills a recognised gap in the disaster response literature that calls for better collaboration between civil society groups and formal institutional responses (Poland et al. unpublished) and the relational nature of this work (Jackson et al. unpublished).

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Abstracts

Health workers and their care work in the situation of the COVID-19 pandemic: where is the commitment from government authorities?

Geneviève McCready, Marie-Ève Lajeunesse-Mousseau, Josée Lapalme, and Sandra Harrisson

COVID-19 has urged governments to respond based on partial data on the effectiveness of means. Women are particularly affected because more of them are caring for others. This study aims to understand the influence of political decisions on the living and working conditions of female health workers. An analysis of the Quebec government public health interventions and the claims of health workers found in journalistic documents and official government press releases (13 April–1 July 2020) was carried out. The results show the authorities' lack of recognition of certain types of care, as well as inadequate means of taking care of the population. The lack of recognition of living and working conditions in political decisions leads to an inequitable distribution of the burdens associated with the pandemic. (Global Health Promotion, 2021; 29(1): 110–118)

Effects of a program for the development of psychosocial skills in a school environment: the Affective and Social Development Program (PRODAS): review of the literature

Aurélie Tardy, Brimbelle Roth, Alexandre Daguzan, Roland Sambuc, and Marie-Claude Lagouanelle-Simeoni

Intervention: The Affective and Social Development Program (Programme de Développement Affectif et Social) (PRODAS) is a program for the development of psychosocial skills for children and adolescents, implemented in schools since 2005 by a French association (*Family Planning*). This article aims to synthesize knowledge on the effects of this program, and thus to contribute to the study of its transferability.
Methods: The literature review carried out focused on studies dating from 1970 to 2017. The following databases were searched: ScienceDirect, PsycNET, ERIC, PsycINFO, Erudit, ISIDOR, Cochrane. The key words used were 'Human Development Program' or 'PRODAS'.
Results: Improvement was reported, most often significant, in the emotional and social skills of children and adolescents. A dose-effect relationship was also suggested by some results. Few data were available in young children (preschool) and no studies explored the long-term effects of the program.
Conclusion: This synthesis highlights the main effects of PRODAS. However, considering that this program is one of the few aimed at children from the age of 4 in France, future studies on preschool children, with long-term follow-up would be useful to complete the data on the effectiveness of such a program. (Global Health Promotion, 2021; 29(1): 119–129)

TABADO 2: a smoking cessation support strategy for adolescents in schools

Amandine Vallata, Marjorie Cadeville, Charlotte Kanski, and François Alla

Tobacco consumption is one of the leading causes of preventable death worldwide. Tobacco addiction begins in adolescence. In addition to actions aimed at preventing young people from smoking, it is therefore necessary to develop specific strategies for adolescents who are already smokers. A smoking cessation support program for adolescents, TABADO, was shown to be effective in a controlled trial carried out in apprentice training centers in 2007–2009. In 2018, the National Cancer Institute (France) planned to generalize TABADO nationally and extend it to vocational high schools. To accompany this process of scaling up, it was essential

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to develop the theory of intervention and analyze the transferability of TABADO in real-life conditions and in new contexts, and to propose the corresponding adaptations. A specific research study was carried out and detailed. The objective of this article is to present the new TABADO 2 strategy to public health actors and decision makers, as well as the related guide developed to support them in implementation. A multiple case study ($n = 10$) was carried out from the implementation of TABADO in three French regions, based on observations, interviews, and feedback seminars. It highlighted the adaptation of the intervention to local contexts, as well as new intervention levers implemented. In addition, the investigations showed that in order to create a favorable climate for the process of smoking cessation and supporting its maintenance over time, it was necessary to include TABADO in the global strategy of the educational establishment and of its environment. This approach made it possible to propose a transformation of the TABADO intervention into a new strategy — TABADO 2 — and to propose a guide to support its national deployment. (Global Health Promotion, 2021; 29(1): 130–138)

Effects of actions to prevent and control SARS-CoV-2: the importance of building bridges between public health and interventions to call attention to gender-based violence

Claudia Gómez López

The World Health Organization (WHO) endorses quarantine as one of the most effective mechanisms for controlling SARS-CoV-2. Nevertheless, this public health tool brings with it disparate impacts. Statistics from Bogota, Capital District of Colombia, show that quarantine conflicts with the guarantee and the non-violation of other rights. Once mandatory quarantine was imposed in Bogota, the number of reported cases of violence against women rose more than 200%. The district, conscious of the risk for women in social isolation and cohabitating with their aggressors, implemented five interventions to prevent violence, provide accompaniment to victims, and mitigate the risk of femicide. These interventions demonstrated that, despite advances in norms and public policy, it is necessary to strengthen, during the pandemic and in the long term, inter-institutional and intersectoral coordination in order to provide a holistic response based in the re-establishment of rights. The experience of Bogota gives urgency to the dialogue between health actions and fundamental rights in the framework of paying attention to a social and health crisis, and to transcending clinical and epidemiological interventions, making space for more holistic strategies in terms of population-level well-being. (Global Health Promotion, 2021; 29(1): 154–161)

Pilot project of health promotion in the dual consumption of cannabis and tobacco in universities: ÉVICT-Universidad

Víctor J. Villanueva, Eva Herrera-Gutiérrez, Susana Redondo-Martín, Manuel Isorna, and Adelaida Lozano-Polo

Introduction: The university is the training site for future professionals in the educational, health, and social fields. The implementation of programs for training, addiction prevention, and health promotion in universities has a double impact: on the individual and, through its mediating role, on the university community in general. As a research-action pilot project, the objective of this study is to establish a framework for health promotion in opposition to the dual consumption of cannabis and tobacco in the university context, involving the university community as an agent of change.
Methodology: Descriptive study of the implementation, coverage, and preliminary results of the ÉVICT-Universidad pilot project.
Results: Between 2018 and 2020, the ÉVICT-Universidad project was implemented in 11 universities, forming with university students as mediators. Community activities were carried out to sensitize and inform students

in regard to health promotion and the prevention of using cannabis and tobacco, with a special focus on the dual consumption of these substances, reaching a total of 1,471 beneficiaries in the three years of implementation.
Conclusions: The pilot experience allows for finding strengths, areas for improvement, and promising results about students' level of knowledge, contributing to the adoption of healthy lifestyles in the university context. In particular, what stands out is the contribution to the training of students as health promotion agents and, thus, health empowerment coming from the university community itself. (Global Health Promotion, 2021; 29(1): 162–171)

Une nouvelle section pour la revue *Global Health Promotion* : faire de la recherche en promotion de la santé

Louise Potvin[1] et Didier Jourdan[2]

La question de savoir sur quel corpus de connaissances il convient de fonder les politiques et les pratiques de promotion de la santé a été posée dès l'origine. Au fil du temps et du fait de l'accroissement considérable de la base de connaissances scientifiques disponibles, elle a pris une tournure radicalement différente. En effet, s'il s'est agi pendant longtemps de s'appuyer sur des résultats de recherche rares et disparates, ce n'est plus le cas aujourd'hui. Longtemps décrite comme une entreprise multidisciplinaire (1) et éclectique du point de vue des méthodes (2), la recherche en promotion de la santé se constitue graduellement en champ distinct, c'est-à-dire un espace dans lequel les chercheurs partagent une identité, des cadres de pensée, des approches de production de connaissance et un cadre éthique explicite (3).

C'est dans le but de formaliser la constitution d'un champ distinct pour la recherche en promotion de la santé et de mobiliser les chercheurs qui y participent que nous avons lancé le projet de publication d'un *Global Handbook of Health Promotion Research* (4). Pour asseoir concrètement notre structuration du champ sur les pratiques mises en œuvre dans des projets conduits par les chercheurs qui s'y identifient, nous avons largement diffusé un appel à contributions. Cet appel a connu un succès qui a grandement dépassé nos attentes. Ayant reçu plus de 80 chapitres en provenance de tous les continents, nous avons opté pour développer et publier un *handbook* en trois volumes.

Le sous-titre du volume 1 est : *Mapping Health Promotion Research*. Ce volume se veut un large tour d'horizon de la recherche qui se fait en promotion de la santé et comment elle est conduite. Il comprend 50 chapitres dans lesquels les chercheurs décrivent en détail les pratiques qu'ils mettent en œuvre dans des projets et programmes de recherche. Notre synthèse de ce matériel nous a permis de dégager de manière inductive des repères pour baliser trois dimensions structurantes pour le champ de la recherche en promotion de la santé : les politiques et pratiques étudiées par la recherche (les objets d'étude), les modalités de production des connaissances (la dimension épistémologique), et ce qui fonde la légitimité de la recherche (la dimension éthique).

Le sous-titre du second volume est : *Framing Health Promotion Research*. Ce volume offre une approche complète et approfondie de ce qui structure le champ de la recherche en promotion de la santé. Les trois dimensions décrites précédemment (cadre éthique, épistémologie et objets d'étude) en constituent l'armature. Chacune des dimensions est présentée et discutée en détail dans de courts chapitres didactiques.

Le sous-titre du troisième volume est : *Doing Health Promotion Research*. Ce volume est composé de courts chapitres didactiques écrits par des auteurs qui ont une expertise approfondie concernant un paradigme, une stratégie de recherche ou une méthode pertinente pour la recherche en promotion de la santé. Ces différents chapitres sont des introductions à ces paradigmes, approches et méthodes qui sont présentées et discutées en relation avec les défis spécifiques de la recherche en promotion de la santé qu'elles visent à solutionner.

Conscients du fait que les paradigmes, approches et méthodes présentés dans le volume 3 ne peuvent prétendre à une description exhaustive des pratiques de recherche en promotion de la santé et que de plus, le champ évolue rapidement, nous croyons important d'offrir un espace pour continuer à publier, colliger et rendre disponible ce matériel. C'est pourquoi en

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partenariat avec l'UIPES et sa publication scientifique qu'est *Global Health Promotion*, nous créons une nouvelle section qui recevra des articles constituant une introduction à un paradigme, une stratégie de recherche ou une méthode pertinente pour la promotion de la santé. Les articles seront soumis au rigoureux processus de révision de la revue et l'ensemble de la collection constituera un répertoire méthodologique s'adressant à la communauté des chercheurs en promotion de la santé. Cette nouvelle section s'inscrit donc comme un complément vivant et évolutif au volume 3 du *Global Handbook of Health Promotion Research*. Des directives spécifiques pour la soumission d'articles pour cette nouvelle section sont disponibles dans les directives aux auteurs sur le site web de GHP. Les rédacteurs de cette nouvelle section seront les directeurs d'édition du *Global Handbook* : Didier Jourdan et Louise Potvin.

Bien que modeste, une telle démarche n'en est pas moins ambitieuse. Relever le défi de la structuration d'une base de connaissance pertinente est décisif pour voir se développer les politiques et pratiques de promotion de la santé à l'échelon mondial dans toute la diversité des contextes culturels, sociaux et économiques. Il est ici question de reconnaissance d'une part et de développement des capacités d'autre part.

Permettre au champ de la recherche en promotion de la santé d'être à la fois clairement identifié et reconnu constitue un levier de premier plan pour l'amplification des recherches via l'accès des chercheurs aux soutiens politique et financier nécessaires à leurs travaux. En effet, les modalités d'évaluation des projets par les pairs conduisent encore trop souvent à une exclusion des dispositifs de recherche sortant des cadres disciplinaires dominants dans le monde académique. Cette reconnaissance est également indispensable à l'attractivité de notre domaine et aux carrières des chercheurs qui s'y engagent.

Structurer la recherche en promotion de la santé comme champ distinct nous apparaît une démarche essentielle pour soutenir les efforts de professionnalisation des intervenants en promotion de la santé et le renforcement des systèmes de promotion de la santé. Pour croître et conserver sa pertinence au fur et à mesure de l'évolution de la pratique, un tel corpus de connaissances demande à être alimenté par une recherche distincte, sans nécessairement se fermer aux apports ponctuels d'autres disciplines. Formaliser un cadre pour identifier les pratiques de recherche qui conduisent à produire des connaissances pertinentes est un passage obligé pour la constitution d'un champ de recherche propre à la promotion de la santé. Il est clair que les connaissances produites dans d'autres domaines de savoir, comme l'épidémiologie, la sociologie, les sciences politiques, la psychologie communautaire, l'éducation et bien d'autres, bien que très utiles, ne sont pas suffisantes pour informer pleinement les pratiques et les décisions qui relèvent de la promotion de la santé.

Il est temps aujourd'hui d'entrer dans une phase de formalisation de ce qui fonde notre champ de recherche, de partager une vision, des approches et une boîte à outils. C'est ensemble, dans la diversité de nos ancrages scientifiques, culturels et géographiques, que nous donnerons corps à cette ambition. C'est ensemble que nous pourrons donner toute la place qu'elle mérite à la recherche en promotion de la santé dans le concert des recherches en santé.

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Travail de *care* des travailleuses de la santé en situation de pandémie de COVID-19 : quel engagement de la part des autorités gouvernementales ?

Geneviève McCready[1], Marie-Ève Lajeunesse-Mousseau[2], Josée Lapalme[3] et Sandra Harrisson[4]

Résumé :
La COVID-19 a pressé les gouvernements à intervenir à l'aide de données partielles sur l'efficacité des moyens. Les femmes sont particulièrement touchées car elles sont plus nombreuses à s'occuper des autres. Cette étude a pour but de comprendre l'influence des décisions politiques sur les conditions de vie et de travail des travailleuses de la santé. Une analyse des interventions gouvernementales de santé publique du Québec et des revendications des travailleuses de la santé retrouvées dans les documents journalistiques et les communiqués de presse officiels du gouvernement (13 avril au 1er juillet 2020) a été effectuée. Les résultats démontrent le manque de reconnaissance des autorités face à certains types de *care*, ainsi qu'une inadéquation dans les moyens de prise en charge pour prendre soin de la population. Le peu de reconnaissance des conditions de vie et de travail lors de décisions politiques engendre une répartition inéquitable des fardeaux associés à la pandémie.

Mots clés : COVID-19, equité/justice sociale, femmes, gouvernance, politiques/politique, equity/social justice, women, governance

« Môman travaille pas, a trop d'ouvrage »

(Yvon Deschamps, 1973)

En 2020, près de 84 millions de personnes ont été atteintes de la COVID-19 mondialement (1), exacerbant les inégalités sociales existantes (2). Certains groupes, notamment ceux à faible statut socioéconomique, sont davantage à risque de contracter le virus, de vivre des complications de la maladie et de subir des conséquences des mesures sanitaires adoptées (3), telles que des problèmes de santé mentale dus au confinement ou à l'arrêt de travail. Au Canada, la province la plus affectée lors de la première vague fut celle du Québec, Montréal représentant le secteur géographique où le nombre de cas et de décès était le plus élevé (4).

Historiquement, les moments de crise amplifient la responsabilité du soin reléguée aux femmes pour assurer la survie humaine (5) parce qu'elles sont plus nombreuses à soigner et à s'occuper des autres, tant dans les sphères publique (travailleuses de la santé et

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des services sociaux) que privée (tâches domestiques, soins aux enfants, aidantes naturelles) (6,7). En contexte de confinement, ces charges disproportionnellement féminines sont alourdies par la fermeture des garderies et des écoles, l'impossibilité de recourir au soutien des proches et l'accroissement du nombre de personnes malades soignées à la maison. De plus, le processus de rationnement des soins des vingt dernières années dans le réseau de la santé québécois renvoie les soins abandonnés par les infirmières – c'est-à-dire ceux répondant aux besoins émotionnels, éducationnels, d'hygiène et ceux liés à la mobilisation des personnes (8) – aux femmes qui y répondent dans la sphère privée. Ce rationnement entraînant une charge accrue du *care* dans la sphère privée vient créer un double fardeau des soins pour les travailleuses de la santé qui réalisent ces activités dans les deux sphères. Bien que des hommes accomplissent aussi les tâches du *care*, celles-ci sont majoritairement réalisées par des femmes, lesquelles sont socialisées à développer ces habiletés dès l'enfance (9). C'est pourquoi il convient de s'intéresser particulièrement à l'expérience des femmes travailleuses de la santé en contexte pandémique. Afin de mieux représenter cette réalité, le féminin est employé dans cet article pour se référer aux personnes qui accomplissent le travail matériel de *care*, soit les soins directs aux usagers.

La crise de la COVID-19 représente une opportunité d'examiner comment les politiciens du Québec (Canada) ont tenu compte des conditions de vie et de travail du *care* des travailleuses de la santé tant dans la sphère publique que privée lors de leurs prises de décisions pour gérer la crise[1]. L'aspect genré du travail de *care* explique en grande partie le manque de considération politique dont les travailleuses de la santé sont victimes en comparaison à d'autres corps de métier jugés plus masculins (10). À cet effet, les journalistes ont joué un rôle crucial pour rendre visible l'influence des décisions politiques sur le fardeau supplémentaire des travailleuses de la santé pendant la crise sanitaire.

Puisque le travail du *care* qu'effectuent les travailleuses de la santé dépend des conditions de vie et de travail, cette étude vise à mieux comprendre l'influence des décisions politiques dans une crise pandémique sur les conditions de vie et du travail de *care* de ces travailleuses. À l'aide du cadre théorique de l'éthique du *care* de la politologue féministe Joan Tronto (11), cette étude avait comme premier objectif de qualifier la disposition des autorités politiques face aux besoins des travailleuses de la santé lors d'une crise pandémique, en prenant en exemple le cas du Québec. Le deuxième objectif visait à démontrer l'influence des réponses des décideurs sur les conditions des travailleuses qui prodiguent le *care*.

L'éthique du *care* de Joan Tronto

Le cadre théorique élaboré par Tronto permet de réinterpréter les productions du *care* avec pertinence. Le *care* est définit comme une :

> *« activité générique qui comprend tout ce que nous faisons pour maintenir, perpétuer et réparer notre « monde », de sorte que nous puissions y vivre aussi bien que possible. Ce monde comprend nos corps, nous-mêmes et notre environnement, tous éléments que nous cherchons à relier en un réseau complexe, en soutien à la vie »* (11, p. 13).

Cette conception est ancrée dans la notion de sollicitude : une forme d'engagement envers autrui conduisant à agir auprès d'une personne, des objets ou sur l'environnement. Tronto (11) soutient que le *care* n'est pas limité aux femmes, même si traditionnellement associé à des valeurs féminines, mais plutôt compris comme une réponse aux besoins. Ainsi, les valeurs rattachées au *care* peuvent varier selon le milieu et les types de *care* offerts. Aussi, le *care* est nécessairement politique puisque « Les réalités politiques déterminent (. . .) la mesure dans laquelle les arguments tirés de la « moralité des femmes » sont pris ou non au sérieux par les acteurs politiques et l'opinion publique » (11, p. 32). Tout acte de *care* implique donc une sensibilité à se saisir des préoccupations et des besoins des personnes ; une disposition qui guidera ensuite la pratique du *care*. Selon ces critères, les décisions politiques peuvent être considérées comme une forme de *care* et être analysées comme telles.

Les quatre phases du *care* décrites par Tronto (11) sont particulièrement utiles pour comprendre le processus de réalisation et la diversité d'acteurs impliqués. La première phase réfère au souci de la personne et au constat de l'existence d'un besoin. La deuxième concerne la prise en charge du *care*, soit la

responsabilité de déterminer la nature de la réponse à apporter aux besoins. Elle est souvent dévolue à des personnes occupant un rôle décisionnel dans la sphère publique. La troisième phase consiste à prendre soin ; il s'agit d'un travail matériel en contact direct avec la personne dans le besoin. Enfin, la quatrième phase étudie la réception du *care*. Dans cette phase, Tronto octroie un rôle actif aux bénéficiaires du processus qui participent ainsi à qualifier le *care* reçu et à évaluer sa capacité réelle à répondre à leurs besoins. Ces quatre phases constituent le cadre analytique de cette étude. Elles permettent de comparer le rôle dans le travail du *care* qui incombe à des instances décisionnelles et les rôles joués par diverses catégories de travailleuses de la santé.

Méthodologie

Ce projet d'étude a été mené selon deux axes : 1) les revendications de la société civile et 2) les décisions prises par les autorités gouvernementales. Dans le premier axe, une sélection d'articles de journaux quotidiens a été effectuée dans la base de données d'actualité *Eurêka* pour la période couvrant la première vague pandémique au Québec, soit du 13 mars 2020 (première journée du confinement provincial) au 1er juillet 2020. Ces informations rapportées par les journalistes sous forme de revendications de groupes de la société permettaient de qualifier des besoins liés aux conditions de vie et de travail des travailleuses de la santé, lesquels étaient à la disposition des autorités politiques. Les articles retenus ont été publiés dans les médias écrits francophones traditionnels *La Presse*, *Le Devoir*, *Le Soleil* et *Radio-Canada*[2], et consistaient en des textes d'opinions (chroniques, éditoriaux, lettres ouvertes) ou d'actualité journalistique. Avant de s'intéresser aux travailleuses de la santé, nous nous sommes basées sur les expériences épidémiques antérieures (12). Une première recherche a été réalisée sur une période d'un mois autour des lexèmes « femme », « immigrant », « pauvre », « racisé », « autochtone », « vulnérable », « préposé », « défavorisé », « aîné », « travailleurs de la santé », « travailleurs essentiel », « préposé », « travailleuses du sexe », « région », « étudiant », « jeune », laquelle a généré 193 articles et 24 catégories. Cette sélection a permis d'identifier des recoupements entre différentes catégories, lesquels ont fait ressortir l'inégalité des divers groupes de travailleuses de la santé face aux impacts des décisions gouvernementales. Par la suite, puisque l'emphase de l'étude portait sur les situations vécues par celles qui prodiguent des soins directs, tous les articles qui ne faisaient pas mention de manière explicite de la condition des femmes ou des travailleuses de la santé qui exercent ce type de soins ont été exclus. À cette étape, il a été remarqué que les réalités des travailleuses de la santé en région étaient moins abordées par les médias, ce qui s'explique par une première vague de la COVID-19 ayant surtout touché la grande région de Montréal. Cette étape a donné un total de 112 articles.

Pour le deuxième axe, tous les communiqués officiels émanant des gouvernements provincial et fédéral témoignant de décisions pouvant affecter les conditions des femmes ont été collectés. Des recherches dans *Eurêka* ont permis de repérer d'autres décisions ministérielles qui n'auraient pas fait l'objet d'un communiqué officiel, mais correspondaient aux revendications du premier axe. Cette démarche a produit 56 décisions gouvernementales.

Pour faciliter l'analyse, une compilation des 168 entrées (43 communiqués gouvernementaux, 13 décisions gouvernementales par articles de journaux, 86 articles d'actualité, 5 articles par des acteurs du milieu académique, 5 articles provenant des milieux communautaires, 10 chroniques et 6 autres) ont été insérées dans une ligne du temps chronologique à l'aide de l'outil informatisé *Preceden*© et classées selon les 10 catégories qui rendaient compte des conditions de vie ou de travail des travailleuses de la santé : pauvreté, immigrants et racisme, travailleuses de la santé, aînés, quartiers pauvres, violence conjugale, femmes, travailleuses essentielles, personnes handicapées et autres vulnérabilités. Les revendications faites par les différents groupes ont été identifiées (phase 3), pour ensuite en distinguer la première occurrence. Puis les moments de prévoyance ou de réponse des gouvernements face à ces revendications ont été trouvés (phases 1 et 2). Ces étapes ont permis de qualifier la disposition des autorités face aux besoins des travailleuses de la santé. L'examen des réactions des divers groupes face aux décisions gouvernementales (phase 4) permettait de décrire l'influence des décisions sur les conditions de vie et de travail des femmes prodiguant le *care*. L'analyse inductive a également été utilisée afin d'ajouter des résultats pertinents aux objectifs

mais qui n'étaient pas compris dans la théorie de Tronto (11) : cette dernière agissait donc comme orientation non exclusive de l'analyse. L'analyse a été menée entre les deux premières auteures, puis discutée et validée par toutes les auteures.

Résultats

Les revendications et les décisions gouvernementales étudiées portaient principalement sur le travail de *care* des travailleuses de la santé. Plusieurs catégories de travailleuses ont été analysées : des aidantes naturelles, des préposées à l'entretien ménager et des employées du réseau de la santé. Cette dernière catégorie comprend notamment des préposées aux bénéficiaires (PAB), des auxiliaires familiales, des travailleuses de services (ex. : cuisines), des infirmières auxiliaires, des infirmières et des travailleuses sociales. Nous nous sommes concentrées sur les travailleuses qui donnent des soins directs aux usagers. Selon le cadre théorique de Tronto, deux constats principaux liés aux phases du *care* sont ressorties de l'analyse, soit 1) la difficulté à reconnaître les besoins des travailleuses de la santé (phase 1) et 2) une inadéquation entre la prise en charge du *care* (phase 2) et ce qui est nécessaire pour réellement prendre soin (phases 3 et 4). L'identification des sources documentaires se trouve en tableau supplémentaire.

Reconnaître - ou pas - l'existence des besoins

Le 13 mars 2020, le gouvernement québécois déclare l'urgence sanitaire[A]. Les communiqués officiels et les journalistes rapportent alors la suspension des travaux de l'Assemblée nationale du Québec, en date du 17 mars[B]. Ceux-ci ne reprendront que le 13 mai 2020. Les lieux publics, les écoles et les services de garde sont aussi fermés, sauf pour les enfants des travailleuses de la santé et des services sociaux[C]. Dans la semaine suivante, le gouvernement annonce la fermeture des commerces, des salles à manger des restaurants et des salons de coiffure, plongeant ainsi le Québec dans le confinement et le ralentissement économique[D].

Anticipant certains effets néfastes du confinement, les gouvernements fédéral et québécois informent la population dès les premiers jours du confinement de la mise en place de mesures économiques, notamment des subventions aux personnes qui se retrouvent sans emploi, dont la Prestation canadienne d'urgence (PCU), la conciliation de comptes personnels (ex. : factures d'électricité), l'interdiction d'éviction de locataires et l'aide financière aux petites et moyennes entreprises[E]. Des subventions sont également octroyées aux organismes d'hébergement pour les femmes victimes de violence conjugale et aux organismes communautaires qui offrent de l'aide alimentaire ou viennent en aide aux personnes en situation d'itinérance[F]. Ces mesures témoignent d'une sensibilité des autorités face à la précarité de certains groupes, notamment les personnes âgées, les personnes à faible revenu, et les femmes victimes de violence.

Dès le 18 mars, les médias rapportent la situation des travailleuses de la santé comme étant préoccupante, soulignant un manque d'équipement de protection individualisé (EPI) et le non-respect du retrait préventif pour des raisons médicales[G]. Le gouvernement publie malgré tout un arrêté ministériel, le 21 mars, afin d'abolir certaines entraves à la gestion de la main-d'œuvre en santé[H]. L'arrêté ministériel affecte les conditions de travail en permettant aux gestionnaires d'annuler les libérations syndicales, suspendre les griefs, placer le personnel en invalidité en affectations adaptées, suspendre les aménagements de travail consentis et convertir les postes à temps partiel en temps complet. Les gestionnaires obtiennent aussi le droit de modifier les horaires et de réaffecter le personnel sans tenir compte des titres d'emploi. Le pouvoir de contestation des travailleuses de la santé est miné par l'état d'urgence affectant la disponibilité des ressources syndicales et parce que les travailleuses ne veulent pas prendre la population en otage. Le 30 mars, un syndicat annonce dans les journaux le lancement d'une plateforme web qui permet à ses membres de dénoncer anonymement leurs piètres conditions de travail[I].

Les témoignages font également état des préoccupations de contagion de la COVID-19 pour certaines travailleuses à plus haut risque de complications, dont les travailleuses enceintes[J]. Dans ces conditions, pour certaines, la démission apparaît comme une porte de sortie :

> « Le public [. . .] n'est pas au courant que tous nos droits sont brimés et que nous n'avons plus aucune qualité de vie et moins de reconnaissance

> que jamais. Que nous sommes intimidées, menacées et j'en passe. Plus de fériés, plus de vacances. Menace d'amende pour non-présence sur nos quarts de travail. [. . .] Plus de port d'attache. Plus de quart de travail fixe. [. . .] On ne sait même pas si on a encore le droit de démissionner, et sous peine de quoi ? » poursuit cette mère de jeunes enfants dont le conjoint travaille sur la route cinq jours par semaine (13).

Les risques secondaires associés aux mauvaises conditions de travail sont avérés puisque les journalistes rapportent en date du 15 mai que les personnes qui œuvrent dans le réseau de la santé représentent 50 % des cas de COVID chez les moins de 60 ans et que huit PAB en sont décédés[K]. Le réseau de la santé se trouve aussi affaibli par l'absence de quelque 6000 travailleuses pour cause d'infection, de retrait préventif ou de crainte d'être contaminées[L].

Le fossé entre les moyens de prise en charge et les cibles d'action pour prendre soin

Un article rapporte des liens entre la forte proportion de travailleuses infectées et la transmission communautaire dans des quartiers défavorisés[M]. À la fin avril, Montréal-Nord, un quartier historiquement plus défavorisé hébergeant une proportion élevée de personnes appartenant à des minorités racisées et de travailleuses de la santé, devient le siège d'une transmission communautaire soutenue[N]. Diverses caractéristiques des conditions de vie dans le quartier sont évoquées dans les médias : densité de population, logements surpeuplés, problèmes de communication en raison de barrières linguistiques, manque de services et plus forte proportion de personnes aux prises avec des maladies chroniques[O]. Il est aussi rapporté par les médias un historique de politiques sociales et économiques d'exclusion, dont sont particulièrement victimes les personnes en situation d'immigration irrégulière, mettant en évidence la vulnérabilité accrue des travailleuses de la santé racisées qui résident dans ces quartiers[P].

Cependant, seules certaines problématiques soulevées par les médias sont abordées par les gouvernements. Au palier régional, la Direction de la santé publique de Montréal met en place au début mai des stratégies communautaires de dépistage massif dans les quartiers défavorisés, dont Montréal-Nord[Q]. Le gouvernement fédéral annonce un programme spécial pour régulariser le statut des personnes issues de l'immigration irrégulière ayant travaillé dans le réseau de la santé, non sans émettre des critères restrictifs[R]. Questionné à ce sujet par les journalistes, le premier ministre du Québec précise pour sa part vouloir traiter la question de l'immigration irrégulière au cas par cas et en dehors du contexte pandémique[S]. Néanmoins, les causes sous-jacentes qui ont entraîné les disparités territoriales de transmission sont ignorées par les gouvernements, lesquels se contentent de saluer le courage des femmes migrantes qui soignent et vivent dans des conditions précaires[T].

Les médias soulignent également les effets néfastes des décisions gouvernementales pour les bénéficiaires de soins et l'organisation des services[U]. Par exemple, l'octroi de primes aux PAB du secteur public et la création d'une formation accélérée qui permet l'accès à ce métier attire les travailleuses vers le secteur public, compromettant d'autres secteurs comme les ressources intermédiaires, les bénéficiaires du chèque emploi-service, les résidences privées et les entreprises d'économie sociale[V]. L'iniquité de cette décision gouvernementale est ensuite dénoncée par des journalistes et par le milieu communautaire. On y critique un traitement injuste des PAB qui œuvrent à l'extérieur du réseau public et dont le salaire reste inférieur à la PCU[W]. Les entreprises d'économie sociale, lesquelles donnent des services à 100 000 Québécois, voient alors leur effectif de 8700 travailleuses réduit de 4000[X]. Les bénéficiaires du chèque emploi-service, majoritairement des personnes handicapées recevant des soins à domicile, craignent d'être abandonnés[Y]. En réponse, le gouvernement provincial bonifie les salaires de ces PAB le 9 avril 2020[Z], ce qui ne l'empêche pas, le 17 avril, de demander aux PAB des entreprises d'économie sociale d'aller prêter main-forte aux Centres d'hébergement et de soins de longue durée (CHSLD), alors en crise[AA].

Ce qu'il convient de qualifier « d'hécatombe » dans ces CHSLD est d'ailleurs un point marquant de l'expérience québécoise de la pandémie. Dans les journaux, on explique que la contamination difficilement contenue ayant mené à une mortalité très élevée est reliée non seulement à la santé fragile des personnes âgées qui y résident, mais aussi aux conditions de travail et à la gouvernance dans le

réseau de la santé : hiérarchisation et précarisation des emplois, place du privé dans la dispensation des soins et mobilité de la main-d'œuvre[BB]. Au moment où les autorités constatent la surreprésentation de ces lieux d'hébergement dans les décès attribuables à la COVID, diverses initiatives sont annoncées par communiqués pour fournir des ressources supplémentaires au réseau de la santé[CC]. Toute personne ayant reçu une formation dans le domaine de la santé est appelée à venir prêter main-forte dans les CHSLD. Cet appel touchera la communauté étudiante et le corps professoral des établissements post-secondaires qui offrent des formations en santé, mais aussi des médecins, des personnes ayant déjà été aidantes naturelles, ou celles qui ont œuvré dans le domaine de la santé au préalable[DD]. Ces mesures sont toutefois insuffisantes. Le gouvernement québécois exprime que les personnes offrant leurs services le font souvent pour une durée temporaire ou à temps partiel, ce qui ne correspond pas aux besoins des établissements[EE]. Il a alors recours aux services de l'armée canadienne jusqu'en juin 2020[FF]. Malgré cette aide supplémentaire, les journaux rapportent des grèves et des manifestations organisées par les syndicats[GG]. Le personnel est à bout de souffle, mais le gouvernement maintient la suspension des congés et vacances.

Discussion

Cette étude nous renseigne sur la capacité de sollicitude, soit l'engagement par des actions appropriées, des politiciens québécois face au *care* majoritairement dispensé par des travailleuses de la santé lors des premiers mois de la pandémie. Le récit fait état de certains moments charnières révélant la prise en compte - ou non - de certaines conditions liées au *care*.

L'abolition des congés et vacances, de même que le rehaussement du statut de l'ensemble du personnel en santé vers le travail à temps plein dévoile une conception des travailleuses de la santé en tant que ressources humaines intarissables et occupant pour seule fonction celle de travailleuse salariée dans le réseau de la santé. Les autres rôles joués par ces femmes dans la sphère privée (mères, conjointes, aidantes naturelles, citoyennes, etc.) ainsi que la part inéquitable du fardeau de tâches domestiques qu'elles assument (9) ne sont pas considérés. En première phase, Tronto (11) souligne l'importance de reconnaître les liens d'interdépendance qui unissent les personnes afin de soutenir socialement les pratiques du *care* qui contribuent à « réparer notre monde ». Ce soutien devient encore plus pertinent dans le contexte de pandémie, alors que les femmes occupent des rôles cruciaux dans de multiples sphères, à la fois publiques et privées. En ne reconnaissant pas les diverses postures, soit celle des personnes nécessitant les soins et les diverses vulnérabilités vécues par les travailleuses, dans ses prises de décision, le gouvernement provincial a alimenté le sentiment de non-reconnaissance vécu par des travailleuses de la santé et n'a pas pu intégrer l'étendue de leurs besoins dans la gestion de la crise. Ceci vient montrer les lacunes dans la disposition face aux besoins d'autrui (phase 1) des autorités gouvernementales, empêchant ainsi une prise en charge adéquate.

Cette étude a également soulevé des écarts existants entre la prise en charge (phase 2) et la provision (phase 3) du *care*, mettant en exergue l'ignorance ou la sous-estimation du travail de conversion nécessaire pour dispenser adéquatement le *care*. Selon Tronto (11), la réception est essentielle à l'évaluation adéquate du *care* puisque la manière dont on choisit de répondre au besoin peut engendrer d'autres problèmes pour la personne réceptrice. À cet effet, les résultats soulignent le rôle essentiel joué par les journalistes dans le maintien de processus démocratiques alors que les travaux parlementaires étaient suspendus. En rapportant publiquement les besoins non comblés, les journalistes ont porté à l'attention des décideurs les iniquités dans les expériences de divers groupes de travailleuses de la santé (travailleuses racisées et celles des secteurs intermédiaires), rapprochant le palier décisionnel des bénéficiaires du *care*. Ceci rappelle également le caractère illusoire de l'autonomie mentionné par Tronto (11) où des personnes prétendent être indépendantes alors qu'elles dépendent du travail réalisé par autrui pour y arriver. Cependant, les objectifs des médias n'étant pas de réduire les inégalités sociales, il s'avère nécessaire d'instaurer des mécanismes de participation et de rétroaction efficaces entre les protagonistes des différentes phases du *care* (bénéficiaires de soins et citoyens, travailleuses de la santé et autorités politiques). La participation des bénéficiaires et de la communauté (14) ainsi que l'évaluation de la réponse aux besoins (15,16) constituent des avenues pour assurer l'équité

dans l'organisation des soins. Mentionnons également la création de canaux de communication interactifs entre les divers paliers en tant que stratégie efficace pour favoriser l'adaptabilité et la viabilité des actions pour promouvoir la santé (17) et assurer la collaboration intersectorielle pour le changement social (18). L'absence de mécanismes de rétroaction entre la quatrième phase du *care* (réception) et la première (prendre acte des besoins) permet donc de poser un jugement à propos de la disposition des politiciens par rapport au *care*. Pour accomplir cela, les rôles joués jadis par les Centres locaux de services communautaires et les comités d'usagers pourraient aisément être réactivés par un investissement de ressources adéquates.

Les gouvernements provincial et fédéral ont agi tôt dans la pandémie afin de protéger l'ensemble de la population par des mesures universelles et certains groupes plus vulnérables par des subventions spécifiques, ce qui concorde avec des stratégies connues (19). Cependant, par la bonification inéquitable des salaires des PAB ou le transfert d'EPI vers les hôpitaux et CHSLD, le gouvernement provincial a entraîné un déplacement des ressources là où l'État est imputable, soit dans le secteur public des services de santé, aux dépens des secteurs privés et communautaires. Ce dépouillement n'a pas échappé aux médias qui ont dénoncé la non-reconnaissance du travail de *care* et souligné les défauts des systèmes parallèles de services que sont notamment l'aide à domicile et les entreprises d'économie sociale. La logique qui a mené le gouvernement à ignorer le *care* dans ces secteurs est la même qui a généré des décisions politiques mal avisées pour les travailleuses de la santé, c'est-à-dire une insensibilité ou une incompréhension de la synergie qui peut s'opérer entre différentes conditions de vulnérabilités spécifiques aux femmes, à l'appartenance raciale, au travail précaire, à la pauvreté, etc (20). À Montréal, près de la moitié des PAB sont immigrantes, en provenance surtout des Antilles ou Bermudes et Philippines (21), et les quartiers où la proportion de travailleuses de la santé infectées est la plus élevée coïncident avec ceux où l'on retrouve davantage de minorités visibles[3] (22). Une enquête réalisée au début de la pandémie à Montréal rapporte que des travailleuses de la santé racisées pratiquaient dans des conditions qui les plaçaient dans un risque accru d'exposition au virus (23). Or, ces réalités vécues par les PAB n'ont pas été prises en compte par les autorités. Bambra *et al*. (24) montrent comment l'inattention portée aux problèmes sociaux peut exacerber une épidémie. C'est ce qui s'est produit lorsque des travailleuses de la santé sont devenues, en raison de leurs conditions de travail et malgré leurs dénonciations annonciatrices, des vectrices de transmission dans des quartiers défavorisés densément peuplés où elles résident ; transmission accentuée par d'autres déterminants, notamment l'utilisation des transports en commun. Malgré les nombreuses décisions pour protéger la société et gérer la main-d'œuvre en santé, peu ciblaient des caractéristiques macroscopiques alors que ce type d'action est reconnu comme élément clé pour favoriser l'équité en santé (25). La transmission du virus a été accélérée dans les centres d'hébergement pour personnes âgées parce qu'au début de la crise, les autorités se sont concentrées sur une gestion des effectifs hospitaliers plutôt que de tenir compte des déterminants sociaux qui leur auraient permis de prévoir une crise plus importante dans les CHSLD. Cette omission révèle le manque de disposition face aux besoins réels (phase 1 de Tronto).

La synergie entre différentes situations de vulnérabilités qui s'opère lors d'épidémies (20,26) est d'autant plus importante dans un contexte où les effets indirects de la crise, notamment causés par la fermeture de plusieurs secteurs économiques et le confinement, peuvent s'avérer bien plus importants que ses effets directs (24). Agir sur les déterminants structuraux de la pratique des travailleuses de la santé fait partie des stratégies pour favoriser l'équité (25,27). Une revue systématique récente montre que pour retirer les bénéfices de l'équité de genre en matière de santé populationnelle, les politiques et législations doivent encourager l'implication des hommes dans les tâches domestiques et de soins aux autres (28). La diversité des rôles joués par les femmes et ceux que pourraient jouer les hommes devraient donc faire partie des préoccupations gouvernementales.

Plusieurs décisions des gouvernements provincial et fédéral ont été bénéfiques notamment parce qu'elles répondent aux besoins de la population (phases 1 et 2), telles le soutien économique aux Québécois, l'offre de garderies pour les personnes travaillant dans les services essentiels et le moratoire sur les évictions de locataires. D'autres politiques, déjà présentes au moment de la crise, comme l'accès universel aux services de santé, ont pu contribuer à réduire un fardeau supplémentaire chez les plus défavorisés

(2,3,29,30). Des études rapportent que la syndicalisation protège ses membres en temps d'épidémie en garantissant des congés de maladie payés, ce qui limite la propagation du virus (2,3). Or, dans le contexte québécois, l'effet bénéfique de la syndicalisation a été miné par le décret d'urgence sanitaire abrogeant les droits des travailleuses de la santé. D'autres mesures devraient être envisagées afin de contrer l'accroissement des inégalités à plus long terme, par exemple, garantir la stabilité des emplois (3,16), particulièrement dans le secteur de la santé, et mettre en place un revenu minimum garanti (30,31).

Cette étude présente des limites. Les médias de masse tendent à sur- ou sous-représenter certains groupes selon la popularité du sujet. La recherche dans d'autres médias, notamment des médias régionaux ou des médias non traditionnels, aurait pu générer des revendications d'autres groupes de femmes. Aussi, certains groupes bénéficient de moyens leur permettant d'occuper une plus grande place dans l'espace médiatique. Certains comptes personnels sur les médias sociaux rapportaient les réalités d'autres groupes, ce qui a permis d'identifier ceux mis de côté par les médias de masse. En effet, les médias sociaux peuvent afficher des revendications différentes des médias traditionnels et celles-ci peuvent être difficilement accessibles aux décideurs. Cette étude rapporte surtout l'influence des politiques gouvernementales sur les conditions de travail et de vie des travailleuses du *care* ; une attention plus spécifique aux actions des gestionnaires aurait pu renseigner sur les possibilités de modulation des décisions gouvernementales. De plus, cette étude se limitant à la première vague de la pandémie au Québec, il est possible que le gouvernement québécois ait entrepris des actions ultérieurement qui traiteraient des types de *care* jugés « oubliés ».

Conclusion

Cette étude démontre l'importance de la prise en compte des besoins circonstanciés, c'est-à-dire liés aux conditions de vie et de travail des travailleuses de la santé québécoises afin de prévenir une répartition inéquitable des fardeaux associés à une pandémie. Elle montre que les actions centrées sur l'organisation des services de santé sont insuffisantes pour endiguer ou ralentir une pandémie, et que des stratégies en promotion de la santé telles que l'amélioration des conditions de vie et de travail sont nécessaires. Cet examen importe pour conseiller les personnes qui élaborent les politiques, d'autant plus que la pandémie et ses conséquences dureront plusieurs années.

Conflit d'intérêts

Aucun conflit d'intérêt déclaré.

Financement

Aucun financement déclaré.

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Matériel supplémentaire

Du matériel supplémentaire pour cet article est disponible en ligne.

Notes

1. Au Canada, les décisions en matière de santé sont majoritairement prises par les provinces et territoires (ex. : gestion du budget et du personnel). Cependant, le palier fédéral joue un rôle dans l'allocation de ressources (ex. : équipement de protection individualisé) ainsi que dans la prise de décisions sur la création de politiques (ex. : politiques économiques pour atténuer les effets indirects de la COVID).
2. Notre étude n'a pas cherché à effectuer une revue de presse, laquelle aurait été plus exhaustive. Cependant, nous avons examiné en début de collecte d'autres journaux tels que le *Journal de Montréal* et le *Journal de Québec*. Une grande répétition des contenus abordés dans les quatre autres médias retenus a été observée, menant à l'exclusion des autres. Aussi, nous avons privilégié des journaux qui publiaient des lettres d'opinions écrites par les citoyens, professionnels de la santé ou universitaires. Puisque l'étude portait sur l'influence des politiques provinciales et fédérales, les médias écrits ayant un lectorat plus restreint (ex. : journaux locaux dans les régions) ont été exclus. La collecte et sélection de sources journalistiques ont été réalisées sur *Eurêka* et non sur les sites internet des médias.
3. Le terme « minorité visible » provient d'une catégorie créée par Statistique Canada définie ainsi : « les personnes, autres que les Autochtones, qui ne sont pas de race blanche ou qui n'ont pas la peau blanche. Il s'agit principalement des groupes suivants : Chinois, Sud-Asiatique, Noir, Arabe, Asiatique occidental, Philippin, Asiatique du Sud-Est, Latino-Américain, Japonais et Coréen » (voir : www.statcan.gc.ca/concepts/definitions/minority-minorite1-fra.htm). Il s'agit de la seule catégorisation disponible dans les données de

recensement canadien afin de représenter les minorités racisées, qui correspondent plutôt à un « processus politique, social et mental d'altérisation » (22, p. 2).

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Effets d'un programme de développement des compétences psychosociales en milieu scolaire : Le PROgramme de Développement Affectif et Social (PRODAS) : Revue de la littérature

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Résumé

Objectif : Le Programme de Développement Affectif et Social (PRODAS) est un programme de développement des compétences psychosociales des enfants ou adolescents mis en œuvre depuis 2005 en milieu scolaire par une association française (le Planning familial). L'objectif de cet article était de synthétiser les connaissances sur les effets de ce programme, afin de contribuer à l'étude de sa transférabilité.

Méthodes : La revue de littérature réalisée a porté sur des études datant de 1970 à 2017. Ont été interrogées les bases de données : ScienceDirect, PsycNET, ERIC, PsycINFO, erudit, ISIDOR, Cochrane. Les mots clés utilisés étaient « Human Development Program » ou « PRODAS ».

Résultats : Une amélioration, le plus souvent significative, des compétences émotionnelles et sociales des enfants et des adolescents était rapportée. Une relation de type dose-effet était également suggérée par certains résultats. Peu de données étaient disponibles chez les jeunes enfants (école maternelle) et aucune étude n'explorait les effets du programme à long terme.

Conclusion : Cette synthèse a permis de mettre en lumière les principaux effets du PRODAS. Toutefois, considérant que ce programme est un des seuls à s'adresser aux enfants dès 4 ans en France, de futures études portant sur des enfants d'écoles maternelles, avec un suivi à long terme, seraient utiles pour compléter les données sur l'efficacité d'un tel programme.

Mots-clés : promotion de la santé, compétence psychosociale, milieu scolaire, évaluation de programme, revue de la littérature

Introduction

Dès 1993, l'Organisation mondiale de la Santé (OMS) définit les compétences psychosociales (CPS) comme *« la capacité d'une personne à répondre avec efficacité aux exigences et aux épreuves de la vie quotidienne », « à maintenir un état de bien-être mental, en adoptant un comportement approprié et positif à l'occasion des relations entretenues avec les autres, sa propre culture et son environnement »*, et souligne leur *« rôle important dans la promotion de la santé dans son acception large renvoyant au bien-être physique, psychique et social »* (1). En France, les politiques de santé et d'éducation (2,3) mettent aujourd'hui l'accent sur l'importance du développement des CPS des enfants en milieu scolaire, notamment par la mise en place d'un Parcours éducatif en santé.

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Cependant, encore peu de programmes de développement des CPS sont aujourd'hui disponibles en France pour les jeunes enfants (moins de 6 ans) (4). Le Registre des interventions probantes de Santé publique France (5) répertorie, par exemple : le Jeu des Trois Figures (J3F), qui vise à lutter contre la violence en milieu scolaire et s'adresse à des enfants à partir de 3 ans ; le Programme de Soutien aux Familles et à la Parentalité (PSFP), un programme d'accompagnement à la parentalité qui intègre des enfants à partir de 3 ans et leurs parents ; et le Programme de Développement Affectif et Social (PRODAS), qui a été l'un des premiers proposés en milieu scolaire. Ce dernier est mis en œuvre depuis 2005 par l'association Planning familial, dans des écoles maternelles et élémentaires de la ville de Marseille, en région Sud Provence-Alpes-Côte d'Azur (PACA), et auprès d'enfants et d'adolescents de différentes régions françaises. Il avait été identifié, d'une part, comme l'un des seuls programmes permettant de renforcer l'estime de soi dès l'âge de 4 ans et jusqu'à 12 ans, et d'autre part, comme étant en cohérence avec les pratiques professionnelles développées par l'association, qui mobilisent plusieurs outils autour des CPS dans les actions de prévention et une écoute centrée sur la personne, en référence aux travaux du psychologue Carl Rogers (6).

Initialement connu sous le nom de Human Development Program (HDP) (7), ce programme a été créé dans les années 70 aux États-Unis par Bessell (psychologue), Palomares (professeur de pédagogie) et Ball (enseignante), en référence à différents modèles théoriques (psychanalyse, psychologie du développement, psychologie humaniste) (8), puis déployé aux États-Unis et au Québec. Dans les années 70–80, environ 15.000 enseignants ont été formés à ce programme (environ 10.000 aux États-Unis et 5.000 au Québec (9)). Il a ensuite été transféré dans plusieurs pays d'Europe, dont la France, la Belgique et la Suisse, l'intérêt autour du développement des CPS en France ayant été plus tardif que dans d'autres pays comme les États-Unis ou le Canada.

L'objectif du PRODAS était pour ses concepteurs de prévenir à long terme les situations de mal-être à l'âge adulte en favorisant le développement affectif et social des enfants (7), par une action menée sur trois facteurs que les concepteurs considéraient comme essentiels dans le développement de l'enfant : Conscience (définie par les auteurs comme le fait de prendre conscience de ses sentiments, pensées et comportements, pouvoir les accepter et, au besoin, les exprimer aux autres), s'apparentant à des CPS émotionnelles ; Réalisation (accroître l'estime de soi et exercer ses compétences de manière responsable, en identifiant ses capacités, ses réussites et ses limites), relevant des CPS cognitives ; et Interaction sociale (percevoir l'influence qu'on a sur les autres et celle que les autres ont sur soi, pour une meilleure appréhension des situations sociales et une meilleure capacité à gérer les conflits), correspondant à des CPS sociales. L'outil principal du programme est le cercle de parole – appelé Cercle magique par les élèves; il est complété par des activités pédagogiques. Au cours d'une séance de 30 à 45 mn, l'enseignant propose un thème et les élèves qui le souhaitent racontent une expérience vécue sur ce thème. Chaque histoire est reformulée par un autre participant. Dans les récits, l'animateur met l'accent sur les émotions, pensées et comportements associés aux expériences. Les thèmes et activités pédagogiques ont été construits et testés en fonction de l'âge des participants, avant d'être intégrés aux différents guides de l'animateur sous forme de programmes recommandant une séance quotidienne pendant 36 semaines. Le PRODAS se décline pour les adolescents à partir de 12 ans dans le programme *Trans-formation* (10), constitué de modules thématisés (violences, addictions, relations humaines, échanges interculturels. . .) permettant de renforcer les trois facteurs de développement déjà mentionnés. La méthode s'appuie fortement sur le savoir-être des enseignants, pour établir la communication avec les enfants, les aider à formuler leurs ressentis, pensées et comportements, de manière bienveillante et non intrusive, et animer le cercle de parole qui est intégré aux heures de classe. En France, depuis 2005, le PRODAS est mis en œuvre par des équipes éducatives volontaires, selon un dispositif comprenant, la première année, quatre jours et demi de formation sur le temps de travail des enseignants, quinze séances individuelles d'accompagnement des enseignants à la mise en œuvre du programme en classe, puis deux séances collectives d'analyse de la pratique des équipes par an. En contexte français, le programme se veut pluriannuel et les séances hebdomadaires.

En France, comme aux États-Unis ou au Québec, le déploiement du PRODAS s'est fait dans un contexte où les politiques publiques en matière de santé et les politiques sociales s'orientaient vers la prévention, en particulier sur des territoires vulnérables ou en direction de publics défavorisés.

L'expérimentation et le déploiement du PRODAS en France ont été soutenus par différentes politiques publiques (3,11) favorisant la création d'espaces protégés d'innovation socio-éducative.

Le PRODAS s'est donc implanté et déployé en France sur la base des connaissances scientifiques et empiriques du programme (ancrage théorique, savoirs sur ses modalités d'implantation, contenu et format des séances (6,8,12–15) ainsi que des savoirs issus de l'expérience des professionnels du Planning familial. En 2017, à notre connaissance, il n'existait pas de synthèse actualisée des connaissances sur les effets du PRODAS, hormis un rapport colligeant un ensemble d'études, diffusé par l'Institut de Développement Humain (16), ne se référant pas au concept de CPS. Néanmoins, ces données paraissaient essentielles aux acteurs du Comité de pilotage du programme en région PACA pour mieux cerner les effets attendus lors du déploiement de ce programme.

Afin d'apporter des éléments de réflexion dans la stratégie de déploiement du PRODAS en France, le but de cet article est de dresser un état des lieux des connaissances sur les effets du PRODAS à partir d'une revue de la littérature, en référence au concept de CPS.

Matériel et méthodes

Recherche bibliographique

Une recherche bibliographique a été effectuée en consultant différentes bases de données : ScienceDirect, PsycNET, ERIC, PsycINFO, Érudit, ISIDOR, Cochrane, avec les mots-clés suivants : « Human Development Program » ou « HDP », ou « PROgramme de Développement Affectif et Social » ou « PRODAS », sur la période du 01/01/1970 jusqu'au 31/12/2017.

La littérature grise a également été recueillie en consultant un moteur de recherche généraliste, Google Scholar, ainsi que par contacts personnels avec Jacques Lalanne, ayant implanté le programme des États-Unis au Québec puis formé des formateurs en Europe (Belgique). Les personnes mettant en œuvre le programme en France sur des territoires où il a été évalué (Marseille, Montpellier) ont également été contactées, afin d'obtenir les rapports d'étude ou mémoires universitaires disponibles au 31/12/2017.

Enfin, une recherche manuelle à partir des listes de références bibliographiques des articles retenus a été réalisée.

Critères de sélection

Ont été inclus les documents fournissant une évaluation des effets du PRODAS en langue anglaise et française, concernant les enfants, les adolescents et les enseignants, rédigés depuis la conception du programme jusqu'au 31/12/2017. Ont été exclues les études non réalisées par des structures externes à celles mettant en place le PRODAS, celles portant sur un public très spécifique et en dehors du milieu scolaire, et les documents non disponibles en texte intégral.

Analyse des données

Les documents ont été analysés à partir d'une grille de lecture basée sur le cadre PICO (Population étudiée, Intervention, Comparaison, Outcome) (17). Ont ainsi été recensés :

a) les éléments descriptifs généraux : nom des auteurs, année de publication, nature du document, discipline du premier auteur, objectifs de l'étude, type d'étude, population, durée d'exposition au programme ;
b) les critères de jugement pour l'évaluation des effets du programme, classés en six catégories : CPS émotionnelles, sociales, cognitives, en référence à la catégorisation des CPS proposée par l'OMS (18) et à celle du Collaborative for Academic, Social and Emotional Learning (19) ; performances scolaires ; comportements dans les relations interpersonnelles et en classe ; attitudes envers les autres et l'école ;
c) les méthodes d'évaluation (qualitatives et/ou quantitatives) ;
d) les principaux résultats.

L'analyse des documents a été réalisée par l'auteur correspondant et un co-auteur. Les divergences, portant sur la catégorisation des critères de jugement, ont été discutées afin d'établir un consensus.

Résultats

Présentation des études

Parmi 47 références, 29 ont été transmises par les acteurs de la mise en œuvre du programme, huit sélectionnées à partir de Google Scholar et dix à partir des autres bases de données (Tableau 1 et 2). Après exclusion des documents non disponibles en

Tableau 1. Descriptif des études portant sur les enfants de 4 à 12 ans.

Auteurs	*Type d'étude*	*Population de l'étude (âge, N = effectif, répartition par groupe)*	*Groupes PRODAS (si > 1)* *Durée d'exposition* *Nombre de séances (durée ; fréquence)*
Keelin (30)	Comparative[a] : oui		NP
	Randomisation : NP	4 ans	NP
	Pré-test post-test	*N* total = 20 (effectif par groupe NP)	NP (15 minutes ; 1/jour)
Kleinpeter (29)	Comparative : oui	4 à 5 ans	12 semaines
	Randomisée : non	*N* intervention = 20	
	Pré-test post-test	*N* contrôle = 20	NP (15/20 mn ; 1/jour)
	Solomon 4 group design	Enfants dits vulnérables, 3 centres	
Brett (32) cité par Robertson (1980)	Comparative : oui	5 ans	6 mois
	Randomisation : NP	*N* total = 145	NP (20 mn ; 4/semaine)
	Solomon 4 group design		
Summerlin *et al.* (25)	Comparative : oui	6 ans	3 mois
	Randomisation : oui	*N* intervention = 39	NP (25 mn ; 3/semaine)
	Post test seulement	*N* contrôle = 20	
MacDonnel (35)	Cohorte prospective	6 à 8 ans	22 semaines
	Descriptive	*N* total = 203	NP (20 à 25 mn ; 1/jour)
	Non comparative		
Giltzow (23)	Comparative	6 à 10 ans	4 mois
	Randomisation : oui, des enseignants et des élèves stratifiés sur le comportement et la réussite scolaire	*N* total = 265, 50 % ne maitrisant pas l'anglais	NP (NP ; 3/semaine)
	Post-test seulement	*N* enseignants = 10	
Darrigrand et Gum (28)	Comparative : oui	7 ans	10 semaines ;
	Randomisation : non	*N* intervention = 28	50 séances (20 mn ; 1/jour)
	Pré-test post-test	*N* contrôle = 29	
Halpin *et al.* (27)	Comparative : oui	7 à 8 ans	4 groupes
	Randomisation : non		5 semaines
	Pré-test post-test	*N* total = 95	10 séances pour 2 groupes et 5 pour 2 autres groupes (NP ; 2/semaine pour 2 groupes et 1/semaine pour 2 autres groupes)

(Continued)

Tableau 1. (Continued)

Auteurs	*Type d'étude*	*Population de l'étude (âge, N = effectif, répartition par groupe)*	*Groupes PRODAS (si > 1)* *Durée d'exposition* *Nombre de séances (durée ; fréquence)*
Moskowitz *et al*. (24)	Comparative : oui Randomisation : oui, classes stratifiées sur caractéristiques socio-économiques, urbanisation et enseignement Pré-test post-test	8 ans *N* intervention = 217 *N* contrôle = 250 Enseignants Groupe intervention *N* = 14 Groupe contrôle *N* = 14	14 groupes 25 semaines 22 séances (±8, 7) (NP ; 1/semaine)
Mestler (31)	Comparative : oui Randomisation : NP Pré-test post-test	8 à 9 ans majoritairement [7 ans ; 10 ans] *N* total = 76 Population défavorisée	2 groupes 8 mois 60 séances (20 mn ; 2/semaine)
Service Santé publique AP-HM (34)	Comparative : oui Randomisation : non Post test seulement	8 à 9 ans *N* intervention = 99 *N* contrôle = 115	9 groupes (répartis en groupes petits parleurs ou gros parleurs) 3 ans 13 à 14 séances/an (30 mn ; 1/semaine)
Martin (21)	Comparative : oui Randomisation : oui, par bloc et stratifiée sur score IAR et sexe Post-test uniquement	9 ans Groupe intervention *N* = 30 Groupe contrôle *N* = 31	4 groupes 10 semaines 19 séances (NP ; 2/semaine)
Jackson (20)	Comparative : oui Randomisée : oui, stratifiée sur sexe et rang au score IAR	9 et 10 ans Groupe intervention *N* = 32 Groupe contrôle *N* = 32	10 semaines 19 séances (25 mn ; 2/semaine)
ORS Languedoc-Roussillon (37)	Cohorte prospective Descriptive Non comparative	9 et 10 ans 2 classes de 2 écoles dont une en Réseau d'éducation prioritaire (REP) Effectif total *N* = 44	2 ans NP (NP ; NP)
Harris (22)	Comparative : oui Randomisation : oui, par bloc et stratifiée sur sexe Pré-test post-test	10 à 12 ans *N* PRODAS = 16 *N* intervention autre = 16 *N* placebo = 16 *N* contrôle = 17	NP 15 séances (25 mn ; 2/semaine)
Tremblay et Home (36)	Cohorte prospective Descriptive Non comparative	10 à 12 ans *N* total = NP Elèves « agressifs » et « prosociaux »	5 mois 26 séances (50 mn ; NP)

NP: non précisé.
[a]Comparative = comparant un groupe bénéficiant du PRODAS et au moins un autre groupe n'en bénéficiant pas.

Tableau 2. Descriptif des études portant sur les adolescents.

Auteurs	*Type d'étude*	*Population de l'étude (âge, N = effectif, répartition par groupe)*	*Groupes PRODAS (si > 1)*
			Durée d'exposition
			Nombre de séances (durée ; fréquence)
Wanat (26)	Comparative : oui Randomisation : oui, stratifiée sur sexe, âge, origine ethnique, niveau de classe, QI	15 à 18 ans *N* intervention = 15	16 semaines
	Pré-test post-test	*N* contrôle = 15 Troubles des apprentissages Majoritairement des garçons	80 séances (55 minutes ; 1/jour)
IREPS Languedoc Roussillon (38)	Comparative : non Randomisation : non Post-test uniquement	15 à 18 ans *N* total = 187 *N* enseignants animateurs = 17	19 groupes 8 mois en moyenne 12 séances [2 à 20] (NP ; NP)
CODES Gard (39)	Comparative : non Randomisation : non Post-test uniquement	15 à 18 ans *N* total = 173	19 groupes 6 mois en moyenne 7 séances [2 à 10] (NP ; NP)
Brunel (33)	Comparative : oui Randomisation : non	16 à 19 ans *N* total = 50	Trans-formation[a] seul (*N* = 12) Trans-formation + atelier d'écriture sur soi (*N* = 10)
	Pré-test post-test	Uniquement des garçons Niveau secondaire professionnel	15 semaines NP (60 minutes ; 1/semaine)

[a]Trans-formation : PRODAS pour les adolescents.

texte intégral (*n* = 23), des études réalisées sur un public très spécifique et en dehors du milieu scolaire (*n* = 1) et des doublons (*n* = 3), vingt documents ont été analysés.

Plus de la moitié des études venait des États-Unis (articles de revues périodiques (*n* = 8), thèses de doctorat (*n* = 4), rapport d'étude (*n* = 1)). Les autres étaient issues du Canada (articles de revues périodiques (*n* = 2) et mémoire universitaire (*n* = 1)) et de la France (rapports d'évaluation (*n* = 4)).

Concernant les années de publication, neuf études datent des années 70, six des années 80, une des années 90 et quatre des années 2010.

Concernant le schéma d'étude, quinze études étaient comparatives (c'est-à-dire comparant un groupe bénéficiant du PRODAS avec au moins un autre groupe n'en bénéficiant pas) : sept étaient des études randomisées (20–26), sept étaient des études non randomisées avec pré-test et post-test (27–33), une étude était non randomisée avec post–test uniquement (34). Cinq étaient des études de cohorte non comparatives, prospectives (35–39).

Population étudiée

Les vingt études ont inclus au total plus de 2.315 enfants ou adolescents et 55 enseignants ou animateurs. L'effectif variait de 20 (30) à 467 (24) enfants ou adolescents (information manquante pour une étude (36)). La population cible était majoritairement des enfants entre six et douze

ans (20–25,27,28,31,34–37). Seules trois études portaient sur des enfants entre quatre et cinq ans (29,30,32). Quatre études ciblaient des adolescents entre 15 et 19 ans (26,33,38,39). Sept des vingt études rapportaient également des effets sur les enseignants (23,24,30,34,37–39).

Exposition au programme

La fréquence des séances était rapportée dans seize des vingt documents et variait d'une séance quotidienne (26,28–30,35) à une séance hebdomadaire (24,27,33,34).

La durée totale d'exposition au programme s'étendait de cinq semaines (27) à huit mois (31,38), à l'exception de deux études où elle était de deux ans (37) et de trois ans (34).

La durée des séances variait de 15 (30) à 20 minutes (32) chez les enfants de quatre à cinq ans. Chez les enfants de six à douze ans, elle variait de 20 (28,31,35) à 50 minutes (36). Chez les adolescents de 15 à 19 ans, elle variait de 55 minutes (26) à 60 minutes (33).

Le contenu des séances était choisi parmi les thèmes des cercles de parole prévus par le programme pour la tranche d'âge ciblée dans toutes les études, sauf pour celle de Tremblay et Home (36) où la thématique de la gestion des conflits était systématiquement choisie.

Domaines et critères d'évaluation des effets du PRODAS

Sur onze études ayant réalisé des pré-tests, ceux-ci étaient réalisés quelques jours avant le début des séances PRODAS dans cinq d'entre elles (24,27,29,31,37). Dans les six autres (22,26,28, 30,33,35), le délai n'était pas précisé. Les post-tests intervenaient à court terme, dans les jours qui suivaient la fin de l'exposition au programme. Pour cinq études, le délai n'était pas précisé (27,28,30,32,33).

Les études s'intéressaient aux effets attendus du PRODAS chez les enfants ou adolescents concernant : les CPS émotionnelles (n = 14), les CPS sociales (n = 13), les CPS cognitives (n = 2) ; les performances scolaires (n = 5) ; les comportements et les attitudes envers l'école, les pairs et l'environnement social (n = 7). Sept études exploraient également les effets du programme chez les enseignants, détaillés plus loin, et quatre études la qualité des relations entre élèves et enseignants (34,37–39).

Les critères d'évaluation étaient documentés uniquement par des méthodes quantitatives dans neuf études (20–22,25–28,31,32). Dix études employaient une méthode mixte (quantitative et qualitative) (23,24,29,33–39). Aucune étude ne recourait qu'à des méthodes qualitatives.

Effets du PRODAS en fonction de l'âge

Enfants de 4 à 5 ans

Chez les enfants de quatre à cinq ans ayant bénéficié du PRODAS (3 études), il était retrouvé une amélioration significative des (Tableau 1) :

a) CPS émotionnelles : concept de soi (29),
b) comportements en classe (29),
c) relations interpersonnelles au sein du groupe (30),
d) performances scolaires (32).

L'éventail des CPS restait cependant peu exploré.

Enfants entre 6 et 12 ans

Chez les enfants de six à douze ans, les études (n = 13) rapportaient majoritairement une amélioration significative ou une tendance à l'amélioration des CPS (Tableau 1) :

a) émotionnelles (n = 8) telles que : le concept de soi, l'estime de soi (23–25,28,34), la conscience de soi ou le contrôle de soi (35–37),
b) sociales (n = 7) telles que : l'affirmation de soi, l'expression des ressentis, l'empathie, l'écoute et l'acceptation des pensées et ressentis d'autrui, qui s'accompagnait d'une amélioration de la qualité des interactions interpersonnelles, notamment avec les pairs et surtout chez les filles (22,27,28,34–37).

Peu d'études portaient sur les CPS cognitives, les performances scolaires, les comportements ou les attitudes envers l'école et les pairs.

Adolescents

Les études (n = 4) montraient une amélioration significative ou une tendance à l'amélioration des (Tableau 2) :

a) CPS émotionnelles : dimension du concept de soi (26,33),
b) CPS sociales : communication et écoute, expression des ressentis, affirmation de soi, acceptation de l'autre (38,39),
e) comportements : adaptation dans les relations interpersonnelles (26).

Aucune étude n'explorait les effets du programme sur les CPS cognitives, les performances scolaires ou les attitudes envers l'école et les pairs.

Enseignants

Une grande diversité de dimensions concernant les enseignants était explorée dans certaines études ($n = 7$) : leurs compétences professionnelles (34,37), leur satisfaction professionnelle (23,24), leurs compétences d'animation du programme (24,38,39) ou encore leurs CPS (concept de soi, compétences d'écoute, gestion des conflits) (23,34,37–39). Dans leur grande majorité, ces études rapportaient une amélioration significative ou une tendance à l'amélioration de ces dimensions.

Discussion

Un intérêt de ce travail de synthèse est de rendre compte des effets du PRODAS, en référence au concept de CPS, suivant la classification de l'OMS (18), aujourd'hui largement partagée par les acteurs du champ de la promotion de la santé. En outre, cette analyse révèle une convergence dans la nature des effets observés. Chez les enfants, quelle que soit la classe d'âge, sont rapportés le développement des CPS émotionnelles, en particulier du concept de soi (40) (la conscience, la connaissance et l'estime de soi) (23–26,28,29,33,34,36) et des CPS sociales (27,28, 31,34–38). Ces résultats sont cohérents avec ceux d'une autre étude (41), non incluse dans cette synthèse, portant sur une population très spécifique (perturbée sur le plan affectif) et non scolarisée en milieu ordinaire. Reconnaître et exprimer ses émotions, mieux se connaître, être empathique, mieux s'accepter les uns les autres sont les principaux effets décrits concernant les programmes de développement des CPS en milieu scolaire (4,42). Par ailleurs, la mise en perspective des études suggère que des interventions plus nombreuses et plus fréquentes seraient plus susceptibles de produire des effets, en particulier sur la tranche d'âge des quatre à cinq ans concernant les performances scolaires (29,32) et sur la tranche d'âge des six à douze ans, concernant les CPS émotionnelles (concept de soi) (20,23,25,28) et les CPS sociales (27). Ces résultats vont dans le sens de ce qui est souligné dans la littérature : un programme long et intense qui commence tôt et se poursuit pendant toute la scolarité est l'une des composantes-clés de l'efficacité des programmes de développement des CPS menés en milieu scolaire (4). De même, plusieurs des études analysées (34,37–39) rapportent, conformément à la littérature, l'importance de la formation et du soutien aux enseignants qui mettent en œuvre le programme. Une des spécificités du PRODAS, en plus de s'adresser à des enfants à partir de 4 ans, est de proposer une intervention conduite en milieu scolaire, pluriannuelle, qui agit sur le développement de compétences pédagogiques et psycho-affectives des équipes éducatives, avec une approche relationnelle et interactionnelle non centrée uniquement sur des activités séquencées dans le temps et par âge (43). L'accent est mis sur des ateliers expérientiels où l'enseignant acquiert une posture bienveillante orientée sur les ressources et le potentiel de chaque enfant, avec une approche résolument humaniste et non comportementaliste qui permet aux enfants d'expérimenter des relations interpersonnelles saines s'intégrant à la vie quotidienne à l'école.

Les études sélectionnées présentent plusieurs limites : le faible effectif des échantillons inclus pouvant entraver la mise en évidence des effets par manque de puissance ; une durée d'exposition au programme généralement courte, alors que le PRODAS est un programme pluriannuel ; une fréquence des séances souvent moindre par rapport aux recommandations du programme d'origine ; des schémas d'étude hétérogènes, parfois sans groupe de comparaison ni randomisation, ce qui, selon le paradigme épidémiologique, limite le niveau de preuve d'efficacité d'une intervention. Aucune étude n'explorait la durabilité des effets, une fois le programme terminé, toutefois les quatre études réalisées en France, évaluaient le PRODAS sur plusieurs années ou après plusieurs années de mise en œuvre (34,37–39). En outre, les études ont été publiées entre 1970 et 1980, et de façon générale, les conditions de mise en œuvre du PRODAS étaient peu documentées. L'influence potentielle du contexte d'implantation du programme sur les effets produits n'était pas explorée, alors qu'une récente synthèse des interventions probantes pour

le développement des CPS (4) montre que l'efficacité des programmes de développement des CPS menés en milieu scolaire est également conditionnée par le contexte dans lequel ils sont mis en œuvre (environnement scolaire, engagement parental, partenariats associatifs notamment).

Enfin, même si certains acteurs de terrain rapportent un impact du programme sur l'univers de l'enfant, y compris en dehors de l'école, ce programme ne propose pas de module spécifique en direction des parents, contrairement à d'autres programmes aujourd'hui déployés en France, comme le Programme de Soutien aux Familles et à la Parentalité (PSFP) (44). Dans un contexte où les parents, les familles ne sont pas toujours faciles à mobiliser, que ce soit pendant ou en dehors du temps scolaire, proposer un programme qui cible prioritairement le milieu scolaire peut en faciliter la mise en œuvre. Afin de développer les CPS des enfants et adolescents, il pourrait néanmoins être pertinent de mobiliser sur un même territoire d'autres programmes complémentaires (préscolaires ou extrascolaires, destinés aux parents ou aux professionnels au contact des enfants et adolescents...) (4).

Perspectives

Aujourd'hui, une étude prospective, avec un suivi à long terme de jeunes enfants (écoles maternelles), pourrait compléter les données sur l'efficacité du PRODAS. Le PRODAS mis en œuvre en milieu scolaire est un programme complexe, impliquant « *de multiples actions enchevêtrées, agissant dans des relations la plupart du temps non linéaires, organisées dans un contexte spécifique et comprises comme des systèmes ouverts [...]* » (45), implémentées dans des systèmes complexes. Sa mise en œuvre et ses effets sont ainsi liés à son contexte d'implémentation, et l'évaluation de ce programme ne peut faire abstraction de ce contexte (politiques publiques, stratégies organisationnelles, éléments culturels, représentations des acteurs...) et des relations programme-contexte (46). Dans cette perspective, l'essai randomisé rencontre ses limites, comme l'ont souligné plusieurs auteurs (47). Des méthodes qualitatives, en complément de méthodes quantitatives, permettraient d'intégrer une dimension compréhensive de l'intervention en complément de la démonstration d'efficacité (48). Une méthodologie, comme l'évaluation fondée sur la théorie du programme (49), pourrait être mobilisée. Mieux cerner ce qui est essentiel à préserver pour obtenir les effets attendus lors d'un nouveau déploiement du PRODAS, contribuerait à l'analyse de sa transférabilité (c'est-à-dire la mesure dans laquelle les effets du PRODAS dans un contexte donné peuvent être observés dans un autre contexte) (50), et reste un enjeu majeur. En effet, le PRODAS est à ce jour l'un des seuls programmes disponibles en France pour développer les CPS des jeunes enfants (5).

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TABADO 2 : une stratégie d'accompagnement au sevrage tabagique des adolescents en milieu scolaire

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Résumé : La consommation de tabac est une des premières causes de mortalité évitable au niveau mondial. La dépendance au tabac s'observe dès l'adolescence. En complément des actions visant à prévenir l'entrée des jeunes dans le tabagisme, il est donc nécessaire de développer des stratégies spécifiques pour les adolescents déjà fumeurs. Un programme d'accompagnement au sevrage tabagique pour adolescents, TABADO, a montré son efficacité lors d'un essai contrôlé mené dans des centres de formation des apprentis en 2007/2009. En 2018, l'Institut national du cancer a souhaité généraliser TABADO au niveau national et l'étendre aux lycées professionnels. Pour accompagner ce processus de mise à l'échelle, il était essentiel d'élaborer la théorie d'intervention et d'analyser la transférabilité de TABADO en conditions de vie réelle et dans de nouveaux contextes, et de proposer les adaptations correspondantes. Une recherche spécifique a été conduite et détaillée par ailleurs. L'objectif de cette publication pragmatique est de présenter la nouvelle stratégie TABADO 2 aux acteurs et décideurs de santé publique, et le guide afférent développé pour les accompagner dans la mise en œuvre.

Une étude de cas multiples ($n = 10$) a été menée à partir de la mise en œuvre de TABADO dans trois régions françaises, qui reposait sur des observations, entretiens et séminaires de retour d'expérience. Elle a mis en évidence l'adaptation de l'intervention aux contextes locaux, ainsi que de nouveaux leviers interventionnels mis en œuvre. De plus, les investigations ont montré que pour instaurer un climat favorable à la démarche d'arrêt de la consommation de tabac et soutenir son maintien sur la durée, il était nécessaire d'inscrire TABADO dans une stratégie globale de l'établissement scolaire et de son environnement. Cette démarche a permis de proposer une transformation de l'intervention TABADO en une nouvelle stratégie – TABADO 2 – et de proposer un guide pour accompagner son déploiement national.

Mots-clés : adolescents et jeunes, tabac, prévention, milieu scolaire, mise à l'échelle

Introduction

La consommation de tabac représente un des principaux facteurs de risque de morbi-mortalité à l'échelle mondiale (1). Dans ce cadre, l'adolescence est une période clé : la plupart des fumeurs ont commencé à l'adolescence (2) ; l'âge moyen de la 1ère cigarette en France est de 14,4 ans, et celui du tabagisme quotidien de 15,1 ans (3). Même si la prévalence du tabagisme quotidien à 17 ans a récemment baissé en France, elle reste de 25,1 % en 2017 (32,4 % en 2014) (3). De plus, la majorité des fumeurs adolescents sont des fumeurs dépendants (4). Il est ainsi nécessaire de développer des stratégies

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de prise en charge des adolescents fumeurs, en complément des actions de prévention de l'initiation.

Pour répondre à cette problématique, un programme d'aide au sevrage tabagique en milieu scolaire à destination des adolescents, TABADO, a été développé en France et évalué en 2007–2009 (5,6). Dans une perspective de réduction des inégalités sociales de santé, ce programme avait été conçu pour la population particulièrement vulnérable des apprentis, dont la prévalence du tabagisme était particulièrement élevée (46.5 % en 2007–2009) (7). À noter qu'en 2017, cette prévalence restait en France deux fois plus élevée dans cette population que chez les jeunes scolarisés dans l'enseignement général (respectivement 47,3 % et 22%) (3). L'efficacité du programme TABADO a été démontrée dans le cadre d'un essai contrôlé en cluster : les centres de formations des apprentis (CFA) qui bénéficiaient du programme TABADO présentaient un taux de sevrage à un an plus élevé parmi leurs apprentis par rapport aux CFA qui n'en bénéficiaient pas (respectivement 17 % et 11,9 % ; OR ajusté = 2,1 [1,2 à 3,6] $p = 0.008$) (6). Dans le cadre du Programme national de réduction du tabagisme (PNRT) 2014–2019 (8) et du Programme national de lutte contre le tabac (PNLT) 2018–2022 (9), l'Institut national du cancer (INCa) a décidé de conduire une généralisation nationale de TABADO en 2018–2021, en CFA et lycées professionnels. Dans le cadre de cette généralisation, il était nécessaire d'analyser l'applicabilité et la transférabilité de TABADO à ce nouveau contexte pour éventuellement proposer des changements dans son contenu ou ses modalités de mise en œuvre, et ceci pour plusieurs raisons :

- il avait été développé dans le contexte particulier des CFA. Or l'extension concerne aussi les lycées professionnels qui ne comportent pas la même population, ni la même organisation (10) ;
- il a été développé il y a plus de dix ans. Le contexte comme les modes de consommations ont changé sur cette période, ce qui peut avoir une influence sur les résultats, par exemple : interdiction de fumer dans tous les lieux collectifs, interdiction de vente aux mineurs, etc. ;
- TABADO a été mis en œuvre dans un contexte de recherche. Sa transposabilité en contexte de routine n'était pas garantie.

Ainsi, une recherche a été conduite en 2018/2019 ayant pour objectif d'élaborer la théorie d'intervention de TABADO. Plus spécifiquement, il s'agissait d'identifier les facteurs et mécanismes favorisant/freinant l'inscription et le maintien des élèves fumeurs dans le programme (Vallata A, Alla F. *How can a school-based smoking cessation program for adolescents be successful? Realist evaluation of the TABADO program*, article en cours), et ceux favorisant/freinant l'arrêt de la consommation de tabac chez l'adolescent (Vallata A, O'Loughlin J, Cengelli S, Alla F. *Predictors of Cigarettes Smoking Cessation in Adolescents: A Sytematic Review*, article publié (11)). Les résultats de cette recherche ont permis de proposer une transformation de l'intervention TABADO en une nouvelle stratégie – TABADO 2.

L'objectif du présent article est de présenter l'aboutissement pratique de cette recherche, c'est-à-dire la stratégie TABADO 2, aux acteurs et décideurs de santé publique, afin de favoriser sa mise en application. Il s'agit spécifiquement de présenter la démarche suivie et le guide développé qui vise à accompagner les acteurs et décideurs dans le déploiement de la nouvelle stratégie TABADO 2 et dans son adaptation aux conditions locales.

Matériels et méthodes

Intervention

Le programme TABADO repose sur l'association d'une prise en charge personnalisée et individuelle du sevrage par un tabacologue, et de groupes de discussion pour renforcer la motivation à l'arrêt et le soutien entre pairs. Il est composé d'une réunion d'information par classe sur la consommation de tabac à destination des fumeurs et des non-fumeurs, puis d'un programme renforcé pour les fumeurs volontaires : consultations individuelles avec un tabacologue avec remise de substituts nicotiniques si besoin, et séances en groupe avec le tabacologue et les fumeurs volontaires (6). Les techniques utilisées s'inspirent des thérapies cognitivo-comportementales.

Les acteurs impliqués sont le tabacologue (réunions d'information, consultations individuelles, séances en groupe), le coordinateur de la structure porteuse (accompagnement méthodologique, réunions d'information, évaluation), le référent au sein de l'établissement scolaire (organisation dans

l'établissement) et tout personnel volontaire dans l'établissement.

Schéma de la démarche

La méthodologie de la recherche ayant servi de support à la création du guide est présentée de façon détaillée dans un autre article (Vallata A, Alla F. *How can a school-based smoking cessation program for adolescents be successful? Realist evaluation of the TABADO program*, en cours).

Brièvement, nous avons mené une évaluation réaliste débutant par une analyse documentaire pour construire la théorie initiale de l'intervention, suivie d'une étude de cas multiples pour élaborer la théorie affinée (objectif de la recherche) (12,13).

Cette étude de cas multiples a comporté deux étapes : une étude de cas exploratoire (3 cas), et une étude de cas explicative (7 cas) ; un cas correspondant à un établissement scolaire. L'objectif de l'étude de cas exploratoire était de découvrir comment se déroulait la mise en œuvre du programme TABADO en pratique, d'identifier les principaux éléments influençant son fonctionnement, et de construire des outils d'investigation adaptés en vue de l'étude de cas explicative (grilles d'observation et guides d'entretien). L'objectif de cette dernière était de tester et d'enrichir les hypothèses préliminaires issues de l'étape précédente, en étudiant TABADO dans de nouveaux contextes de mise en œuvre.

Description des cas

Nous avons inclus tous les établissements scolaires implantant le programme TABADO entre septembre 2016 et juin 2018. Au total, à notre connaissance, TABADO a été implanté dans 10 établissements de 3 régions de France dans des contextes différents : en Grand-Est dans un contexte de recherche (3 CFA) – population de l'étude exploratoire (14), en Nouvelle-Aquitaine dans des conditions de routine (2 CFA), et en Île-de-France dans des conditions de routine également, mais dans des lycées professionnels (5 lycées) – populations de l'étude explicative.

Investigations

L'étude de cas reposait sur des investigations qualitatives (15,16) :

- des observations des réunions d'information sur la consommation de tabac ($n = 39$) et des séances en groupes ($n = 12$),
- des entretiens semi-directifs avec les coordinateurs régionaux et départementaux ($n = 4$), les référents au sein des établissements scolaires ($n = 3$), les tabacologues ($n = 2$), les professeurs ($n = 4$),
- des entretiens semi-directifs avec les élèves ($n = 33$, dont certains réalisés dans le cadre d'un autre projet de recherche (17), mais exploités secondairement pour le présent travail),
- des séminaires de retour d'expérience ($n = 3$) réunissant les acteurs des différents établissements scolaires, les tabacologues, les conférenciers, les coordinateurs régionaux et départementaux, et les chercheurs,
- un carnet de bord du déploiement général de l'intervention.

Le Tableau 1 détaille les investigations menées dans chaque établissement.

Analyse

Une analyse de contenu de l'ensemble de ces données a été réalisée spécifiquement pour ce travail (18). Elle reposait sur une démarche itérative continue entre le recueil, l'analyse et l'interprétation des données, afin d'aller toujours plus en profondeur dans la compréhension de l'intervention en restant fidèle aux données du terrain. Elle cherchait 1) à identifier les leviers et les freins influençant a) la mise en œuvre du programme, b) l'adhésion, l'implication et la satisfaction des élèves par rapport au programme, celle de l'équipe pédagogique, et des intervenants ; et 2) à décrire les adaptations nécessaires pour prendre en compte les spécificités des organisations et contextes locaux.

Avec l'ensemble de ces éléments, une première version du guide a été élaborée par AV sous la direction de FA et a bénéficié de la relecture de MC et CK. Cette version a été présentée lors d'une formation organisée par l'INCa dans le cadre du déploiement national (19). Cette formation regroupait les porteurs de projets sélectionnés par l'INCa ; certains avaient déjà mis en place TABADO, tandis que d'autres ne l'avaient pas encore mis en place. L'ensemble de ces avis et échanges regroupant acteurs, expérimentés et novices, et chercheurs, ont

Tableau 1. Type d'investigation par cas.

	Étude de cas exploratoire			**Étude de cas explicative**						
Contexte de mise en œuvre	**Recherche**			**Vie réelle**						
Type d'établissement	**CFA**					**Lycées professionnels**				
Région d'investigation	**Grand-Est**			**Nouvelle-Aquitaine**		**Île-de-France**				
Identification du cas	G1	G2	G3	N1	N2	I1	I2	I3	I4	I5
Carnet de bord	x	x	x	x	x	x	x	x	x	x
Observation des réunions d'information	9	8	1	–	6	5	–	–	5	5
Observation des séances en groupes	4	3	NA*	–	–	1	–	1	0	3
Entretiens avec les bénéficiaires :										
Volontaires	10	9	NA*	–	–	5	3	–	–	1
Non-volontaires	–	–	–	–	–	–	2	–	–	–
Abandons	–	–	NA*	–	–	–	1	–	2	–
Entretiens avec les acteurs impliqués :										
Référents établissement	Informels	Informels	–	–	–	1	–	1	1	–
Tabacologues	Informels	Informels	NA*	–	–	1		–	1	
Coordinateur	NA* (commun aux 3 cas)			1	1	2 (communs aux 5 cas)				
Professeurs	Informels	Informels	–	–	–	–	1	3	–	–
Séminaires inter-sites (retour d'expérience et validation des hypothèses)	x	x	–	–	–	x	x	x	x	x

*NA = non applicable car pas d'inscrits ou car 1 personne avec le rôle coordinateur/chercheur.

permis à AV d'affiner la première version du guide. Une dernière relecture a de nouveau été effectuée par les autres co-auteurs et a conduit à la version finale du guide ici présentée.

Éthique et réglementation

TABADO a été mis en œuvre dans un contexte de recherche en Grand-Est, ayant pour cela obtenu l'autorisation du CPP Est III (n°ID-RCB 2016-A00317-44 en date du 06/04/2016), et dans un contexte de routine dans les deux autres régions rentrant dans le cadre des autorisations d'interventions des structures concernées. Dans tous les cas, les élèves et les parents des mineurs étaient informés par écrit et avaient la possibilité de s'opposer, par oral pour les élèves, par écrit pour les parents, à la collecte de données individuelles.

La présente investigation est basée sur une exploitation secondaire des données recueillies dans le cadre de ces mises en œuvre du programme, complétées par un recueil *ad hoc* de données qualitatives (entretiens et observations). Les logiciels utilisés étaient N'Vivo et RQDA. Les données recueillies ont été anonymisées et sont protégées selon les procédures usuelles des structures porteuses (mot de passe, sauvegardes, etc). Ce travail n'appartient pas au champ des recherches impliquant la personne humaine. Au vu des pièces qu'il avait à sa disposition, le Groupe Publication du Comité d'Éthique du Centre hospitalier universitaire de Bordeaux a émis un avis favorable à la publication de ce travail de recherche (Avis CE-GP- 2020/30).

Résultats

Les résultats de la recherche (déterminants du sevrage tabagique, théorie d'intervention initiale et affinée) sont présentés dans les articles dédiés Vallata A, Alla F. (*How can a school-based smoking cessation program for adolescents be successful? Realist evaluation of the TABADO program*, en cours ; Vallata A, O'Loughlin J, Cengelli S, Alla F. *Predictors of Cigarettes Smoking Cessation in Adolescents: A Sytematic Review*, publié (11)). Les résultats présentés ici portent sur l'utilisation des

résultats de la recherche. Ce travail a permis d'aboutir à la création de TABADO 2. Le changement de nom est justifié par le changement de perspective : d'une intervention isolée à une stratégie globale d'établissement. Cette stratégie contient les principales composantes de TABADO (une réunion d'information, des consultations individuelles avec remise de substituts nicotiniques si besoin, et des séances en groupes) auxquelles s'ajoutent : 1) une adaptabilité de forme, 2) de nouveaux leviers interventionnels, 3) une stratégie globale qui s'organise à plusieurs niveaux.

Une adaptabilité de forme pour prendre en compte la diversité des contextes

La démarche menée a permis d'observer que des adaptations au protocole initial ont été effectuées par les acteurs. Les entretiens et les séminaires avec les parties prenantes ont permis de justifier ces adaptations et de proposer d'autres pistes pour faciliter le déploiement de TABADO 2.

L'ensemble de ces éléments est présenté dans le guide. Il s'agit de proposer une intervention moins « clés en main » et dont la forme s'adapte à la diversité des contextes, des contraintes et des opportunités, pour laisser plus de libertés aux acteurs de terrain tout en conservant les fonctions clés de TABADO. Par exemple, le choix du format de la réunion d'information est laissé à l'animateur selon ses compétences et préférences d'intervention : utiliser le diaporama fourni, ou toute autre technique d'animation qui lui semble pertinente (brainstorming, débat sur une vidéo, vrai/faux et débat à partir d'idées reçues, etc.), du moment que les messages clés sont passés. Les messages clés ont quant à eux été identifiés lors de l'analyse et sont listés dans le guide. Autre exemple, d'autres professionnels qu'un tabacologue médecin (ce qui était imposé par le protocole initial) peuvent être mobilisés, tels que des tabacologues infirmiers et psychologues, ce qui permet d'augmenter les ressources humaines potentielles.

L'intégration de nouveaux leviers interventionnels

Les investigations ont permis de mettre en évidence de nouveaux leviers mobilisés par les acteurs, permettant de renforcer les effets du programme.

Ces éléments ont été discutés en séminaires avec toutes les parties prenantes et ont été intégrés à la nouvelle stratégie proposée dans le guide.

En particulier, l'implication d'une infirmière scolaire s'est avérée être un facteur de réussite du programme dans les lycées. Elle n'avait pas de rôle défini dans TABADO initial, car les CFA expérimentaux de 2007–2009 ne disposaient pas de telles professionnelles. Son statut paramédical fait d'elle un adulte particulier au sein de l'établissement scolaire pour les adolescents qui voient en elle un soignant qui n'est pas impliqué dans leur parcours scolaire, et avec qui les échanges sont automatiquement couverts par le secret professionnel. Elle s'est avérée avoir plusieurs rôles participant à la réussite du programme, en particulier favoriser les inscriptions des adolescents fumeurs au programme en engageant une discussion avec eux, et assurer une continuité dans le soutien au sevrage pour ceux qui en ressentaient le besoin entre deux consultations avec le tabacologue.

Une stratégie globale

Les investigations ont montré que pour instaurer un climat favorable à la démarche d'arrêt de la consommation de tabac et soutenir son maintien sur la durée, il est nécessaire d'inscrire TABADO dans une stratégie globale.

C'est-à-dire qu'il faut intégrer TABADO dans une stratégie d'établissement plutôt que le considérer comme une intervention indépendante. Cela passe par le respect de la réglementation au sein de l'établissement (interdiction de fumer dans l'enceinte de l'établissement), la mobilisation d'une équipe projet au sein de l'établissement, l'inscription du programme dans le projet d'établissement, et l'information de l'ensemble du personnel de l'implantation de TABADO dans l'établissement. Cela permet en particulier de renforcer la motivation des personnes impliquées, et de prévenir les comportements d'opposition au programme de la part des professeurs. De plus, la continuité de la prise en charge des élèves fumeurs se voit ainsi améliorée par la collaboration du personnel de l'établissement.

Cette stratégie doit également intégrer l'environnement de l'établissement : il s'agit en particulier de nouer des partenariats externes pour construire un véritable parcours de soin, permettant de prolonger la période de suivi des élèves si nécessaire, ainsi que, le cas échéant, organiser la

prise en charge de co-consommations le nécessitant (notamment le cannabis).

Nous avons enfin observé un effet potentialisateur du dispositif national Moi(s) sans tabac (20). En effet, l'insertion dans ce dispositif a permis de sensibiliser l'ensemble de la communauté, constituant un contexte favorable pour l'implantation de TABADO. Il est ainsi désormais recommandé de faire de cette sensibilisation un préalable à l'implantation de TABADO.

Pour finir, nous recommandons de mettre en œuvre TABADO dans le cadre d'une stratégie pluriannuelle, ce qui est vu comme un facteur d'adhésion de l'ensemble de la communauté.

Le guide TABADO 2

Le guide pratique décrivant cette nouvelle stratégie a pour vocation d'accompagner les acteurs dans l'implantation de TABADO 2 dans un établissement scolaire, dans sa mise en œuvre et son évaluation. Il s'agit d'un outil d'aide à la décision au niveau local, la mise en œuvre devant être adaptée aux spécificités du contexte d'implantation.

Ce guide est construit autour de 11 chapitres. Il est disponible gratuitement dans sa version intégrale dans le registre des interventions probantes de Santé Publique France via le lien suivant : http://portaildocumentaire.santepubliquefrance.fr/exl-php/vue-consult/spf___internet_registre/REG00000005

Discussion

La démarche réalisée a permis de faire évoluer une intervention développée pour une population spécifique dans le contexte contraint d'une recherche (l'intervention TABADO) à une stratégie développée pour une utilisation en routine et ayant pour ambition la mise à l'échelle à travers la diversité des populations et des contextes (TABADO 2). Les recommandations émises invitent à réfléchir de manière plus générale sur l'adaptabilité des interventions, la façon de les appréhender et de les transférer de la recherche à la pratique courante.

L'adaptabilité comme enjeu de l'engagement des acteurs

Bien que TABADO ait été prouvé efficace en suivant un protocole de recherche rigoureux, son implantation dans des conditions de vie réelle à travers la diversité des contextes d'intervention nécessite de réfléchir à la balance fidélité de l'intervention et adaptabilité de la mise en œuvre. Cette balance fidélité/adaptabilité est un enjeu majeur des interventions complexes en santé (21). La fidélité permet, dans le cadre de la démarche probante, de garantir un potentiel d'efficacité. L'adaptabilité facilite d'une part l'adhésion des professionnels, et est aussi un facteur d'efficacité en vie réelle, en particulier quand le résultat est le fruit de l'interaction entre des leviers interventionnels et des facteurs contextuels (22,23). Ce « design adaptatif » semble nécessaire pour conserver l'efficacité des interventions dans des environnements variés (24). De plus, le fait que les acteurs locaux n'adhèrent pas et ne soient pas engagés dans l'intervention est une des raisons expliquant les échecs de mise à l'échelle des interventions complexes (25). Le dilemme est alors de savoir ce que l'on peut adapter ou ce qu'il faut conserver de façon fidèle à l'intervention initiale pour ne pas en dénaturer l'efficacité. Pour cela, il est nécessaire de distinguer les fonctions clés, déterminantes pour l'efficacité, de la forme, qui est la façon de délivrer une intervention et qui doit être adaptée au contexte (26,27). Cette adaptation relève en particulier des acteurs locaux. Notre démarche repose ainsi sur les principes de la démarche probante en santé publique, qui associe la preuve scientifique à l'expertise des professionnels et aux préférences de la population dans un contexte donné (28).

C'est dans cette perspective qu'a été construit le guide en indiquant les fonctions clés à conserver, tout en laissant la liberté aux acteurs d'adapter la forme de l'intervention à leurs possibilités. D'autres travaux sont en cours pour formaliser ce processus d'adaptation des interventions complexes aux contextes locaux (29,30).

D'une intervention à un système interventionnel

Nous avons montré qu'inscrire TABADO dans une stratégie globale était un facteur de sa réussite. Lors de la mise en œuvre de TABADO, comme pour toute intervention complexe, un ensemble de leviers interventionnels et contextuels entre en jeu, dont l'interaction produit le résultat, au sein d'un système. Cela souligne que l'intervention ne peut être distinguée de son contexte. Par exemple, l'infirmière

scolaire est-elle une composante de l'intervention TABADO ou relève-t-elle du contexte de mise en œuvre ? De même, l'application stricte de l'interdiction de fumer dans l'établissement est-elle une composante ou un élément du contexte ? La notion de « système interventionnel » plutôt que d'intervention permet d'abolir cette frontière entre intervention et contexte, souvent poreuse. Le système interventionnel se définit comme un ensemble d'agents contextuels humains et non humains interdépendants, délimité par des frontières spatiales et temporelles. Ils génèrent ainsi des mécanismes qui sont des préalables pour un changement en santé (22).

Une indispensable étape de traduction de la recherche à la pratique courante

L'utilisation de données probantes issues de la recherche est un enjeu pour les acteurs de terrain comme pour les décideurs en santé (31). Cependant, le transfert d'une intervention créée pour la recherche vers une intervention pouvant être déployée dans des conditions de routine nécessite une étape de « traduction » pour la rendre applicable, pertinente et efficiente dans la vie réelle (32,33). Cette étape doit impliquer les acteurs et bénéficiaires de l'intervention, et les chercheurs (34,35). Si l'on veut favoriser la mise à l'échelle des interventions, il s'agit donc de construire un processus comprenant le développement d'une intervention viable dans des conditions de routine (36), précise dans ses fonctions clés, et adaptable dans sa forme (26). Cette mise à l'échelle se doit d'être accompagnée d'outils spécifiques (guide, site, etc.), à l'exemple de ce que Santé publique France avait développé pour Icaps (37), ou les universités de Bristol et Cardiff, et Evidence to Impact pour ASSIST (38). C'est dans cette perspective que nous avons élaboré le guide TABADO 2.

Une alternative à cette démarche séquentielle, et qui nous semble préférable, serait de co-construire dès le départ une intervention entre acteurs de terrain et chercheurs, et d'étudier sa viabilité en situation de vie réelle lors d'une étape pilote (39).

Forces et limites

La limite principale de l'étude de cas est qu'elle a été menée sur 10 cas; nous ne pouvons pas prétendre à l'exhaustivité des facteurs d'influence. De plus, même si notre démarche a permis de mettre en évidence des barrières entrant en jeu au niveau macro (c'est-à-dire le système de santé national (40)), elle ne permet pas d'y remédier, car ces barrières ne relèvent pas des établissements. En effet, des questions d'ordre juridique liées à la prescription et la délivrance des substituts nicotiniques ont été régulièrement soulevées. De même, le manque de disponibilité des tabacologues et leur inégale présence sur le territoire ont empêché d'implanter le programme TABADO dans des établissements éloignés d'une grande ville, accentuant les inégalités d'accès aux soins et à la prévention. Enfin, nous n'avons pas évalué les effets de la stratégie proposée en termes de sevrage. Cependant, la généralisation nationale 2018–2021 portée par l'INCa est en cours. Son évaluation permettra d'évaluer les effets de TABADO en contexte et d'en analyser les modérateurs au niveau macro, et donc de répondre à ces questions (19,41).

Par ailleurs, un des intérêts de la démarche itérative et cyclique de l'évaluation réaliste que nous avons employée (12) a été de pouvoir fournir le guide TABADO 2 sans attendre la fin du processus complet de la recherche, pour répondre à un besoin immédiat des décideurs concernant la généralisation nationale de TABADO.

Conclusion

Ce travail nous a permis de proposer une nouvelle stratégie, TABADO 2. Il s'agit d'une intervention globale qui invite à la création d'un environnement scolaire favorisant l'arrêt de la consommation de tabac. Il est nécessaire de l'articuler avec un programme national déjà existant, le Moi(s) sans tabac, pour un effet synergique. En ressort une approche plus en phase avec les réalités du terrain, prenant en compte et mobilisant son environnement. Nous invitons ainsi chercheurs et acteurs de terrain à s'allier pour mener des interventions de prévention scientifiquement validées, en utilisant des démarches partenariales, afin d'étendre et améliorer les interventions de santé publique.

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Conflit d'intérêts

Aucun conflit d'intérêt déclaré.

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Il faut démanteler le statu quo et promouvoir des politiques pour la santé, le bien-être et l'équité : un prélude à l' « IUHPE2022 »

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Résumé :
Le prochain rassemblement international de la famille mondiale de la promotion de la santé aura lieu à Montréal en mai 2022. La 24ème Conférence de l'UIPES a pour thème « Promouvoir des politiques pour la santé, le bien-être et l'équité ». Les organisateurs de la Conférence ont décidé de transcender la rhétorique des « suspects habituels » et de construire un programme de conférence qui remette vraiment en question les notions clés qui sous-tendent la promotion de la santé. Dans ce commentaire, les membres des Comités scientifiques mondial et canadien réfléchissent à l'état des lieux et aux possibilités à venir. Nous proposons les trois thèmes suivants : (a) saisir les opportunités dans les changements actuels en repérant les bouleversements ou les moments charnières qui représentent une promesse ou des fenêtres d'opportunités, qu'il s'agisse de défis à relever comme les pandémies, de changements climatiques ou géopolitiques, de troubles sociaux ou de l'apport de l'évolution des technologies ; (b) s'affranchir des visions conventionnelles du monde qui ne privilégient que les solutions commerciales, aller vers la décolonisation des pratiques et des systèmes pour s'émanciper des conceptions basées sur les divisions entre le Nord et le Sud ; et (c) innover en brisant les silos entre les disciplines, les frontières et les identités enracinées dans nos pratiques et notre compréhension de l'innovation.

Mots clés : plaidoyer (y compris plaidoyer médiatique), collaboration/partenariats, déterminants de la santé, autonomisation/pouvoir, équité/justice sociale, santé mondiale/mondialisation, promotion de la santé

La promotion de la santé en tant que champ de pratique et de recherche continue d'évoluer. En tant que mouvement mondial, la communauté de la promotion de la santé fait entendre de nombreuses voix. Il est toutefois difficile de continuer à trouver un équilibre entre des techniques et des approches élégantes et sophistiquées, d'une part, et des problèmes de santé bien concrets et souvent aigus, d'autre part.

Les conférences mondiales de l'Union internationale de promotion de la santé et

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d'éducation pour la santé ont – la plupart du temps – réussi à trouver ce juste équilibre. Le prochain rassemblement international de la famille de la promotion de la santé mondiale se tiendra à Montréal, en mai 2022. La 24e conférence de l'UIPES a pour thème « Promouvoir des politiques pour la santé, le bien-être et l'équité ». Les organisateurs de la conférence ont décidé de transcender la rhétorique des « suspects habituels » qui consiste à viser l'équité en santé (par des discussions par exemple sur des thématiques comme les déterminants sociaux de la santé et la santé dans toutes les politiques) pour plutôt examiner les causes profondes des iniquités en santé et leurs déterminants structurels, y compris ceux d'ordre politique, économique, environnemental, culturel et social. Les Comités scientifiques de l'« IUHPE 2022 » construisent un programme de conférence qui remet vraiment en question les fondements et les orientations des politiques en matière de santé, de bien-être et d'équité pour la promotion de la santé. Dans ce commentaire, les membres des Comités scientifiques mondial et canadien réfléchissent à l'état des lieux et aux possibilités à venir.

La promotion de la santé reste le processus qui permet aux individus, aux groupes et aux communautés d'avoir davantage de maîtrise des déterminants de leur santé et davantage de moyens de les améliorer. Pour parvenir à un état de complet bien-être physique, mental et social, l'individu, ou le groupe, doit pouvoir identifier et réaliser ses ambitions, satisfaire ses besoins et évoluer avec son milieu ou s'y adapter (1). Notre communauté se positionne comme un mouvement social positif, qui s'engage avec des vues optimistes dans ce qui détermine la santé et le bien-être humain, écologique et planétaire. Nous luttons également pour la justice sociale et la réduction de toutes les inégalités (sociales, écologiques, culturelles, ou créées par tout autre paramètre), qui influencent négativement la santé.

Cependant, au moment où nous écrivons ce commentaire, la maladie à coronavirus 2019 (COVID-19), fait des ravages dans les populations et les économies, révélant non seulement notre fragilité face aux nouvelles maladies infectieuses, mais aussi combien les changements climatiques, les inégalités sociales et raciales systémiques, et les failles de nos systèmes politiques et économiques pèsent sur notre bien-être collectif. Il ne s'agit pas seulement d'une épidémie de dimension mondiale (une « pandémie »), mais bien d'une « syndémie » – une coalescence systémique d'événements sanitaires et sociaux qui expose des lignes de faille critiques à travers le monde (2). Horton (3), le rédacteur en chef de *The Lancet*, s'est écarté, à juste titre, de la notion de « syndémie » proposée à l'origine par Singer, plus axée sur l'épidémiologie. La tragédie de la syndémie de COVID-19 n'est pas seulement l'impact inéquitable d'une série de comorbidités (cliniques) désastreuses, mais c'est aussi l'effet d'un monde qui permet la mort de centaines de milliers de personnes dans des pays superficiellement riches et puissants. La syndémie est aussi le résultat d'un mépris pervers pour de larges pans de populations défavorisées qui maintiennent précairement des économies néolibérales à flot. Elle souligne, par exemple, que nous sous-valorisons et sous-payons des millions de travailleurs essentiels. Nous sommes témoins du prix élevé que nous payons – sur les plans environnemental, social et de la santé – pour nos économies compétitives sous forte pression.

Des événements comme le meurtre de George Floyd aux États-Unis, le mouvement « Black Lives Matter » et les inégalités effroyables de la pandémie qui se sont avérées dans de nombreuses communautés racialisées et défavorisées sur le plan économique et social nous amènent à marquer une pause pour réfléchir aux insuffisances de nos approches politiques. Qu'elles soient apocryphes, optimistes ou cyniques, les données empiriques dans le domaine de la recherche politique sont claires : les urgences et les catastrophes inspirent le changement. Cette notion de moments importants et limités de bouleversement et de changement potentiel émerge des travaux de John Kingdon sur la théorie des courants multiples (4) et de la pensée dite des « équilibres ponctués » (5). Nous aspirons à une promotion de la santé qui repousse les limites des politiques favorables à la santé, au bien-être et à l'équité. Nous voulons réfléchir à la manière dont peuvent être repensées l'intégration des services de l'Etat et l'intégration de la santé dans toutes les politiques pour remédier efficacement aux inégalités que la promotion de la santé cherche à vaincre. Avec la syndémie et les 70 ans d'histoire du champ que nous appelons promotion de la santé, vient la question : quels sont les contours et les grands enjeux de la promotion de la santé à laquelle nous aspirons pour les générations futures ?

Les organisateurs de l'« IUHPE2022 » ont identifié trois thèmes pour nous aider à réfléchir à la

situation actuelle de la promotion de la santé; ce que nous faisons bien et ce à quoi nous pouvons aspirer pour mieux comprendre, nous engager et changer.

Nous avons formulé ces thèmes comme suit :

- Saisir les opportunités dans les changements actuels en repérant les bouleversements ou les moments charnières qui représentent une promesse ou des fenêtres d'opportunités, qu'il s'agisse de défis à relever comme les pandémies, de changements climatiques ou géopolitiques, de troubles sociaux ou de l'apport de l'évolution des technologies ;
- S'affranchir des visions conventionnelles du monde qui ne privilégient que les solutions commerciales, aller vers la décolonisation des pratiques et des systèmes pour s'émanciper des conceptions basées sur les divisions entre le Nord et le Sud ; et
- Innover en brisant les silos entre les disciplines, les frontières et les identités enracinées dans nos pratiques et notre compréhension de l'innovation.

Les conversations que nous souhaitons avoir à notre conférence devraient être intéressantes et animées, parfois même artistiques et pleines d'humour. Elles devraient être inspirantes, mais aussi difficiles. Nous reconnaissons que les dizaines de milliers de membres – individuels et institutionnels, détenteurs ou non d'une carte – qui composent la communauté mondiale de la promotion de la santé forment un lot d'une grande diversité. Ce qui peut être difficile pour certains peut être réconfortant pour d'autres. Ce qui est une pratique courante dans le Sud peut se révéler une innovation radicale dans le Nord. Ce commentaire vise à établir des points communs pour nous tous.

Saisir les opportunités engendrées par un bouleversement mondial

Alors que le terme « innovation disruptive » découle d'une théorie utilisée dans le monde des affaires (6), fermement ancrée dans les économies néolibérales que la promotion de la santé remet en cause, le terme a néanmoins pris vie de ses propres ailes, en se concentrant sur des évènements ou moments charnières qui permettent de reconfigurer les relations de pouvoir et les priorités des agendas. Dans une série récente de blogues, le BMJ a identifié 19 disrupteurs de la santé mondiale (7). Il s'agit notamment des épidémies dévastatrices (sida, syndrome respiratoire aigu sévère (SRAS), Ebola, maladies non transmissibles (MNT)), de très grands événements géopolitiques (la fin de la guerre froide, la Convention-cadre pour la lutte antitabac et l'Initiative Belt and Road), de changements de grande ampleur (l'urbanisation, les migrations, le changement climatique) et de nouveaux acteurs et phénomènes (le complexe médico-industriel et l'influence des grands donateurs privés/ONG).

Aujourd'hui, d'autres sujets sont considérés comme des disrupteurs : le néolibéralisme, les *Fridays for Future*, la COVID-19, l'initiative « *Wet'suwet'en Strong* », les *Marches pour la justice* et le mouvement des *Black Lives Matter*. On porte une attention renouvelée, à l'échelle mondiale, à l'équité (en santé) et aux chemins empruntés par ses détracteurs, à commencer par le colonialisme et le racisme. La promotion de la santé malheureusement continue d'être en grande partie politiquement et écologiquement aveugle (prétendant être « sans parti pris »), axée presque entièrement sur l'individu ou les relations interpersonnelles plutôt que sur les déterminants écologiques de la santé. La promotion de la santé a aussi des difficultés à s'attaquer de façon significative aux iniquités qui persistent dans nos sociétés. Même si le Rapport de l'Organisation mondiale de la Santé sur les Déterminants de la Santé (8) a ouvert la voie à une focalisation sur les inégalités de pouvoir afin de surmonter les inégalités sociales dans le domaine de la santé, nous avons besoin de nouvelles façons plus efficaces d'aborder ces problèmes par la recherche, la pratique et les politiques.

Nous constatons que les « déterminants sociaux » commencent à suivre la voie des « soins de santé primaires d'Alma Ata ». En fait Mills (9) a prédit les tendances dont nous avons été témoins au cours des dernières décennies : plutôt que d'engager politiquement les ressources communautaires pour améliorer la santé (ce qui était l'intention même de la Déclaration), une focalisation technocratique et médico-clinique de la théorie et de la pratique des soins de santé primaires semblent les avoir détournés de la population. De la même façon, les approches axées sur les déterminants sociaux sont en train de devenir des exercices dominés par la technocratie

qui mettent l'accent sur les mesures, statistiques et indicateurs et les responsabilités économiques, alors que l'objectif principal du programme était – et demeure – sociopolitique. Il semble en être de même en ce qui concerne le potentiel émancipateur des Objectifs de développement durable (ODD). Ces bouleversements pourraient aussi contribuer à enraciner les systèmes actuels, comme on l'a vu dans le cas de l'alimentation avant la COVID-19 : des changements majeurs dans l'alimentation avaient renforcé la production industrielle et le commerce, plutôt que de mener à la souveraineté alimentaire (10). Il est donc encore plus important que prévu de s'organiser contre un tel enracinement de systèmes qui façonnent de manière négative la santé humaine. En reconnaissant les disrupteurs évoqués ci-dessus, on a posé un verre grossissant sur les relations entre ces différents événements et problématiques : les liens existants entre la crise climatique, les droits des peuples autochtones, la concentration de la richesse et la violence racialisée. Les événements eux-mêmes sont des disrupteurs, mais nous pourrions ne pas reconnaître que les liens entre eux peuvent être encore plus choquants et exiger des politiques qui recoupent (ou relient) les disrupteurs.

Ce pourrait être une vague parfaite pour les promoteurs de la santé (amoureux de surf). Cela nous permet de relier les points entre toutes ces questions et de braquer les projecteurs sur la santé et le bien-être dans toutes les politiques. Les disrupteurs identifiés dans l'article du BMJ ont façonné et façonneront ce que fait la gouvernance mondiale de la santé (depuis les épidémies jusqu'aux réfugiés climatiques), comment (depuis les campagnes de vaccination jusqu'aux accords commerciaux) et avec qui (depuis les acteurs étatiques traditionnels jusqu'aux fondations privées et aux mouvements sociaux). Pourtant, le changement et la gouvernance à l'échelle mondiale ont des dimensions locales et communautaires – et l'engagement entre les niveaux et les territoires est essentiel pour l'identification des changements dans les systèmes (c.-à-d. les politiques et les institutions). Par exemple, les villes (devraient) avoir comme objectif de repenser leur environnement bâti afin d'améliorer la qualité de l'air, la possibilité de marcher, le logement, le confort thermique et la sociabilité pour tous, et en particulier pour ceux qui subissent dans leur vie les conséquences de l'accumulation des inégalités. Les États doivent chercher des moyens d'améliorer l'accès aux soins de santé et aux services sociaux pour les plus démunis. La santé et le bien-être sont la colle qui aide à relier les points entre les disrupteurs car ils se traduisent tous par des résultats de santé aggravés et des inégalités de santé accrues. Pour les promoteurs de la santé, cela signifie renforcer la santé, le bien-être et l'équité dans d'autres politiques, en s'engageant avec des acteurs qui ont d'autres problèmes au cœur de leurs préoccupations, comme les parties prenantes engagées dans les questions environnementales, les urbanistes, les militants dans le domaine social, les industries de l'infrastructure, etc. La conférence offrira de nombreuses opportunités d'apprendre comment des promoteurs de la santé ont travaillé avec des professionnels dévoués provenant de différents domaines de politiques publiques. En fait, la conférence pourrait bien montrer que la promotion de la santé peut tout à fait vivre en dehors du secteur de la santé.

Innover en brisant les silos entre nos pratiques, systèmes, recherches et politiques

Le deuxième sous-thème offre d'autres façons de penser et de travailler en promotion de la santé, et fait suite à la *Déclaration de 2019 des peuples autochtones de Waiora en faveur de la santé planétaire et du développement durable*. Cette déclaration, adoptée lors de notre dernière conférence mondiale, a appelé les communautés de la promotion de la santé, à l'échelle mondiale, à s'ouvrir aux peuples autochtones, et à privilégier leurs voix et leurs connaissances en prenant des mesures pour apaiser notre relation avec tous les êtres de la Terre Mère et privilégier le développement durable. Des siècles d'expansion impérialiste ont créé des systèmes et des institutions qui façonnent l'injustice économique, sociale et sanitaire généralisée, systémique et continue. Les peuples autochtones à travers le monde, en particulier, en souffrent de façon disproportionnée – leur culture, leurs liens familiaux, leur développement durable, leur écologie et leurs systèmes de connaissances ont été délibérément et clandestinement détruits. Les inégalités en santé sont donc le fruit d'une oppression systématique à long terme des peuples autochtones et de leurs modes de savoir (y compris de leurs façons de promouvoir la santé). Toutefois, la décolonisation de la promotion

de la santé va au-delà d'une attention particulière portée aux peuples autochtones. Il faut créer des espaces pour différentes traditions épistémologiques qui déterminent la façon dont nous voyons le monde, la façon dont nous nous organisons dans celui-ci, les questions que nous posons et les solutions que nous recherchons. À mesure que nous intégrons d'autres épistémologies, nous reconnaissons l'importance de collaborer véritablement avec ceux qui ont souvent été « les étudiés » pour prendre part à la recherche dans l'intérêt de tous en utilisant des approches de recherche participatives et communautaires. De telles approches participatives nous obligent à réfléchir à notre positionnement dans la recherche et à réfléchir aux façons dont nous pouvons mieux faire entendre la voix, les besoins et les priorités des communautés en tant qu'alliés (11). *Waiora* nous aide également à comprendre certains des problèmes liés à l'idéologie néolibérale actuelle et, plus largement, à notre idéologie et à notre système capitalistes qui privilégient l'extraction des ressources et l'accumulation individuelle de richesses, plutôt que les responsabilités et la réciprocité.

Erondu *et al.* (12) ont récemment affirmé, alors qu'ils se penchaient sur une institution prestigieuse de santé publique, que « l'héritage colonial et le néo-colonialisme – définis par certains universitaires comme le renforcement des pratiques colonialistes de contrôle et d'influence par des actions, comportements, attitudes et croyances, la plupart du temps inconscientes – sont les fondements d'un modèle opérationnel systémique qui façonne les possibilités de carrière, les partenariats de recherche et les pratiques d'enseignement ». Ce regard colonial – ou « étranger » (13) – est omniprésent et ne constitue pas seulement un héritage durable de l'ambition impérialiste de quelques puissances blanches du Nord. Elle est plus insidieuse que cela et s'étend à la domination d'un système de connaissance particulier – cartésien. Mweemba *et al.* (14) montrent comment la sous-représentation systémique et systématique du Sud mondial maintient une illusion de supériorité coloniale – même si les « colonies » en tant qu'entités appartiennent pour la plupart au passé. La décolonisation n'est donc pas simplement la reconnaissance et l'excuse d'un paradigme capitaliste blanc. Il s'agit aussi de décentrer la blancheur, d'utiliser des outils d'équité raciale et de porter le discours de la décolonisation aux pays et aux populations du Sud.

Pour décoloniser la promotion de la santé et élaborer des politiques et des programmes de santé plus efficaces et culturellement adaptés, il faut que ce soit les communautés qui dirigent effectivement le processus d'élaboration des politiques. Il faut que leur engagement et leur participation soient réellement assurés. Nous devons remettre en question l'idée que les résultats de la recherche des sociétés occidentales dominantes (le Nord mondial) sont directement applicables dans d'autres contextes. Au contraire, nous devons générer des connaissances au sein même des communautés autochtones et minoritaires, avec elles et pour elles, afin de promouvoir l'équité en santé. La recherche impliquant des chercheurs autochtones et des membres de la communauté est nécessaire pour combler et refermer le fossé (15). De tels processus de décolonisation de la recherche montrent la voie à suivre pour co-créer de l'intelligence et changer la dynamique de pouvoir pour soutenir des innovations profondes et des changements radicaux. Les outils de la promotion de la santé devraient s'approprier les innovations propres aux méthodes de recherche autochtones comme la narration, le Dadirri et le modèle dit du « double regard » (16).

Innovation émancipatrice

Dans la perspective de l' « IUHPE2022 », il faut que la communauté mondiale de la promotion de la santé (y compris l'UIPES et d'autres institutions, mais aussi les décideurs politiques, les activistes et des institutions essentielles) identifie les principales innovations clés susceptibles de changer les façons de considérer les problèmes et leurs solutions. Nous devons commencer à identifier les personnes, les communautés et leurs réseaux qui peuvent conduire le changement – au niveau des politiques et des systèmes. L'innovation commence souvent à petite échelle et prend du temps à se répandre. C'est le réseautage qui va lui permettre d'être découverte, reconnue et diffusée. Il faut que l' « IUHPE2022 » permette cela.

D'anciens concepts et technologies (comme l'intelligence artificielle) ont besoin d'être rafraîchis avec une optique forte de promotion de la santé, de bien-être et d'équité (ce pourrait être l'adoption de la Déclaration de Montréal pour un développement responsable de l'intelligence artificielle (17) à l' « IUHPE2022 »). De la même façon, la mobilisation des mouvements sociaux en faveur de l'équité et du

bien-être fait déjà partie de notre répertoire. La question de savoir si nous le faisons toujours bien et de manière responsable, mérite un examen critique. Le réseautage et l'engagement à l'échelle mondiale (à travers les médias sociaux) créent de nouvelles occasions de faire entendre plus de voix, sinon toutes. Le leadership inspiré et l'apprentissage par la pratique (18) doivent faire partie intégrante du changement de politique.

Un autre domaine d'innovation en promotion de la santé consiste à recadrer de manière plus significative et plus délibérée les systèmes de pouvoir et les intérêts qui favorisent le maintien des façons de travailler, de faire et d'arranger les « qui obtient quoi, pourquoi et quand » du jeu politique. Ces questions sont au cœur même de la promotion de la santé et pourtant, mis à part certains idéologues persévérants en marge de notre mouvement, nous n'avons pas réussi à intégrer de nouvelles idées comme l'éconologie (19), la consucratie (20), les changements intergénérationnels transformateurs et la polarisation des systèmes de valeurs dans un plan d'action fort.

Nous innovons de différentes manières et nous vous invitons à vous retrouver sur le Territoire traditionnel des Haudenosaunee/Anishinaabe de Tiohtià:ke (Montréal) en mai 2022. Le bouleversement de la syndémie a créé l'opportunité d'organiser une conférence différente, en mode hybride (en personne et de manière virtuelle) qui permet à beaucoup plus de voix d'être entendues et à plus d'esprits d'être réunis. Il faut que tous nous nous aidions à poursuivre des changements fructueux, à décoloniser le patrimoine commun de l'humanité et à innover pour améliorer la santé, le bien-être et l'équité. Nous invitons les promoteurs de la santé, les communautés, les activistes, les universitaires et, plus important encore, les opérateurs des politiques publiques à contribuer à transformer notre monde au profit de toutes les Nations et de toutes nos relations avec la Terre Mère.

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Résumés

La distanciation sociale durant la COVID-19 : risque et efficacité chez les étudiants universitaires de sept nations

Jeanine P. D. Guidry, Paul B. Perrin, Nadine Bol, BaoBao Song, Cheng Hong, Alessandro Lovari, Ioana A. Coman, Nicole H. O'Donnell, Mariam Alkazemi, Jing Niu, Sara J. R. Pabian, Annemiek J. Linn, Carrie A. Miller et Kellie E. Carlyle

La COVID-19 s'est rapidement répandue à travers le monde, et jusqu'à ce que des vaccins efficaces et sans danger soient largement adoptés, des mesures de prévention telles que la distanciation sociale sont essentielles pour maintenir la pandémie sous contrôle. Les questions de recherche formulées par l'étude concernaient les facteurs psychosociaux prédisant le comportement par rapport à la distanciation sociale et les différences potentielles entre les pays en matière de distanciation sociale. Nous avons mené une enquête auprès d'un échantillon international d'étudiants universitaires, en utilisant le Modèle étendu des processus parallèles (MEPP) comme cadre théorique, pour examiner les effets prédictifs du risque et de l'efficacité ainsi que des variables démographiques sur l'adhésion à la distanciation sociale comme comportement de prévention de la COVID-19. En utilisant la modélisation des relations structurelles et l'analyse de covariance, nous avons confirmé les effets prédictifs du MEPP sur le comportement de distanciation sociale. Notre modèle final a montré que la vulnérabilité perçue par rapport à la COVID-19 était à la fois directement et indirectement (à travers l'efficacité de la réponse) associée au comportement de distanciation sociale ; que la gravité perçue de la COVID-19 produisait un effet indirect significatif sur le comportement de distanciation sociale à travers l'auto-efficacité et l'efficacité de la réponse ; que la vulnérabilité perçue était indirectement et positivement associée au comportement de distanciation sociale à travers l'efficacité de la réponse ; et que l'auto-efficacité et l'efficacité de la réponse étaient directement associées au comportement de distanciation sociale. En outre, il existait des différences de distanciation sociale entre les pays. Les explications possibles de ces résultats et leurs implications sont discutées. (Global Health Promotion, 2021; 29(1): 5–13)

COVID-19 et promotion de la santé au Brésil : les agents de santé communautaires entre vulnérabilité et résistance

Gabriela Lotta et João Nunes

Au Brésil, la promotion de la santé repose sur les agents de santé communautaires (ASC), des prestataires de première ligne qui font le lien entre le système de santé et les groupes vulnérables. Les ASC brésiliens sont majoritairement des femmes issues de milieux défavorisés, avec des conditions de travail précaires et parfois dangereuses, et une formation fragmentaire et non systématique. Cet article évalue la manière dont la pandémie de COVID-19 a exacerbé les vulnérabilités préexistantes des ASC (relatives au salaire peu élevé, aux conditions de travail précaires et dangereuses, et à la formation inadéquate) et en a créé de nouvelles, avec un profond impact sur leur capacité à poursuivre leurs activités de promotion de la santé. En s'appuyant sur les témoignages de douzaines d'ASC et sur les discussions en ligne encouragées par leurs syndicats, l'article révèle que durant la pandémie, il a été demandé aux ASC de poursuivre leur travail sans formation adéquate ni équipement de protection, les exposant ainsi au risque d'infection. Il montre en outre comment la pandémie a rendu dangereuse l'interaction étroite avec les patients qui est au cœur de leur action promotrice de santé. Cependant, les ASC ont cherché à adapter leur travail. En l'absence de leadership et de coordination de la part du gouvernement fédéral, les ASC ont mobilisé différentes formes de résistance à l'échelle nationale et individuelle. Malgré cela, la COVID-19 a contribué à une tendance à l'érosion de la promotion de la santé au Brésil. Les résultats de ce cas signalent les difficultés de la promotion de la santé dans les pays à faibles et moyens revenus où l'on a recours aux ASC pour faire le lien entre le système de santé et les usagers vulnérables. (Global Health Promotion, 2021; 29(1): 14–22)

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Réponse psychologique à la pandémie de COVID-19 au Canada : les principaux facteurs de stress et atouts

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Contexte : La crise de la COVID-19 comporte des caractéristiques particulières qui accroissent le sentiment de peur et s'accompagnent de facteurs de stress supplémentaires (par ex. confusion, discrimination, quarantaine), ce qui peut entraîner des réponses psychologiques négatives. Cependant, on comprend peu les différences entre les contextes socioculturels dans les réponses psychologiques aux pandémies et aux autres catastrophes.
Objectif : Examiner la manière dont les Canadiens de différentes provinces, et avec différents modes de gouvernance et contextes socioculturels, comprennent la pandémie de COVID-19 et y réagissent.
Méthodes : Une enquête en ligne a été menée entre le 8 et le 11 avril 2020 auprès d'un échantillon représentatif de 600 Canadiens adultes issus de deux contextes différents ($n = 300$ au Québec, la partie francophone du Canada, et $n = 300$ dans le reste du Canada). Deux résultats psychologiques ont été évalués : un probable trouble de stress post-traumatique (TSPT) et un probable trouble anxieux généralisé (TAG). Les effets sur ces deux résultats de divers facteurs de stress (c.-à-d. menace perçue pour soi-même ou pour la famille/les amis, quarantaine ou isolement, pertes financières, victimes de stigmatisation), atouts (c.-à-d. confiance dans les autorités, informations reçues, et observance des directives) et sources d'information utilisées ont également été examinés. Des tests du khi carré ont été réalisés afin d'examiner les différences au niveau de la distribution des TSPT et des TAG probables selon ces facteurs de stress et ces atouts.
Résultats : Des TSPT et TAG probables ont été observés chez 25,5 % et 25,4 % des participants, respectivement. Ces proportions étaient significativement plus faibles au Québec que dans le reste du Canada. La perception d'un niveau élevé de risque et le fait d'être victime de stigmatisation étaient associés de manière positive à de probables TSPT et TAG (mais pas à la quarantaine/l'isolement ni aux pertes financières). Un niveau élevé de confiance dans les autorités était le seul atout associé à un risque plus faible de TSPT ou de TAG. Il est intéressant de noter que cet atout était plus fréquemment rapporté au Québec qu'ailleurs au Canada.
Conclusion : La pandémie de COVID-19 constitue une opportunité unique d'évaluer les impacts psychosociaux sur divers groupes et contextes socioculturels, fournissant ainsi d'importants enseignements susceptibles d'aider à faire face à d'autres catastrophes à l'avenir. (Global Health Promotion, 2021; 29(1): 23–32)

Perception précoce, comportements, connaissances et pratiques de prévention par rapport à la COVID-19 chez les Palestiniens

Basma Salim Salameh, Sami Basha, Jihad Abdallah et Walid Basha

Il est nécessaire de comprendre la perception précoce, les comportements et les connaissances sur la maladie à coronavirus 2019 (COVID-19), de même que les pratiques de prévention par rapport aux politiques suggérées et les informations accessibles pour la population palestinienne durant les premiers stades de la pandémie. Le but de cette recherche est de contribuer à cette compréhension dans l'intention d'affecter de futures politiques pratiques de prévention qui puissent être mises en œuvre et adaptées en cas de Palestine afin de déterminer un nouveau modèle de pratiques réflexives pour faire face à d'éventuelles crises épidémiques de quelque nature que ce soit à l'avenir. Un devis intersectoriel a été utilisé pour mener l'étude sur 3 semaines en avril 2020, et une enquête en ligne a été diffusée dans toutes les régions de Palestine. Un total de 1040 réponses a été recueilli auprès de personnes âgées d'au moins 18 ans. Un niveau élevé de connaissances liées à la COVID-19 a été observé, y compris concernant les symptômes et les caractéristiques du virus, les pratiques de prévention, et les groupes à risques. Les participants croyaient qu'ils étaient plus vulnérables face à la grippe que face à la COVID-19, et plus susceptibles de contracter

la grippe plutôt que la COVID-19, mais s'attendaient à ce que l'infection par la grippe soit moins sévère que l'infection par la COVID-19. Les participants étaient plus enclins à trouver la COVID-19 préoccupante et stressante qu'ils ne l'étaient à la trouver inquiétante. Environ deux tiers des participants croyaient que différents types de théories conspirationnistes liées à la COVID-19 étaient vrais dans une certaine mesure. À l'avenir, il sera primordial et essentiel de fournir aux populations au sens large une sensibilisation fondamentale autour des maladies, laquelle pourra contribuer de manière positive à influencer les connaissances et les attitudes des populations, de même que leur perception de telles maladies, et à lutter contre les théories conspirationnistes. (Global Health Promotion, 2021; 29(1): 33–43)

Comprendre le paysage et la propagation des fausses informations sur la COVID-19 et leur correction sur Sina Weibo

Qinghua Yang, Zhifan Luo, Muyang Li et Jiangmeng Liu

La prévalence des fausses informations de santé sur les réseaux sociaux pourrait influencer de manière significative les comportements individuels en matière de santé. Pour examiner les sujets prédominants, la propagation et la correction des fausses informations sur la maladie à coronavirus 2019 (COVID-19), des analyses de contenu automatisées ont été menées pour de publications sur Sina Weibo, le site de microblogage le plus important en Chine. Au total, 177.816 publications liées à de fausses informations sur la COVID-19 durant la flambée épidémique de cette maladie en Chine ont été analysées. La modélisation structurelle de sujets a identifié 23 sujets valides concernant de fausses informations sur la COVID-19 et leur correction ; ceux-ci ont ensuite été catégorisés en trois thèmes généraux. Une analyse de sentiments a été menée afin de générer des scores de sentiments positifs et négatifs pour chaque publication. Le modèle de Poisson à surreprésentation de zéros a montré que seuls les sentiments négatifs prédisaient de manière significative le nombre de commentaires ($\beta = 0{,}003$, $p < 0{,}001$), mais pas les republications. De plus, les utilisateurs avaient davantage tendance à republier et à commenter les informations concernant la prévention/le traitement (par ex. prévention de la COVID à l'aide de la médecine traditionnelle chinoise), ainsi que les risques de COVID-19 (par ex. la COVID-19 définie comme une épidémie par l'Organisation mondiale de la Santé). Les implications pour la promotion de la santé et l'éducation pour la santé sont discutées. (Global Health Promotion, 2021; 29(1): 44–52)

Le port du masque universel pour prévenir la transmission du SARS-CoV-2 dans les pratiques taïwanaises

Chia-Wei Chao, Vivian Chia-Rong Hsieh, Chun-Yi Tan et Min-Hao Yuan

Dans la lutte contre la pandémie de COVID-19, en 2020, Taïwan, avec sa politique en faveur du port du masque universel, a ralenti la propagation des cas et a aplani sa courbe épidémique sans imposer de confinement ou de quarantaine massive. Cette étude identifie les caractéristiques distinctives de la mise en pratique de la politique taïwanaise en faveur du port du masque universel, telles que la priorisation, l'amélioration continue, les partenariats multiples, la transparence et la responsabilité, l'altruisme et la solidarité sociale. En faisant face à l'incertitude au travers de la crise de la COVID-19, cette étude suggère que le port du masque, plutôt qu'une simple barrière physique dans le cadre d'une intervention non pharmacologique, peut être adopté comme un programme politique interactif dans le but de responsabiliser le public pour stimuler une collaboration intersectorielle en faveur de l'innovation sociale et pour créer des effets d'entraînement, tels que des actes de confiance publique, d'altruisme et de solidarité. (Global Health Promotion, 2021; 29(1): 53–57)

Les impacts du changement climatique sur la promotion de la santé des populations autochtones : l'étude de cas de la communauté Dikgale dans la province du Limpopo, en Afrique du Sud

Sejabaledi A. Rankoana

Les déterminants les plus importants de la promotion de la santé des populations autochtones sont la disponibilité et l'accessibilité de l'eau, de la nourriture et de la médecine traditionnelle. C'est pour cette raison que la Charte d'Ottawa pour la Promotion de la Santé de 1986 proposait l'inclusion de la nourriture, de l'eau et des écosystèmes dans toutes les stratégies de promotion de la santé. La présente étude décrit dans quelle mesure le changement climatique, sous forme de rareté des précipitations et d'augmentation des températures, affecte la disponibilité et l'accessibilité de l'eau, de la nourriture et de la médecine traditionnelle de manière qualitative comme déterminants fondamentaux de la promotion de la santé des populations autochtones. Des entretiens approfondis ont été menés auprès de 240 participants expressément sélectionnés dans la communauté de Dikgale, dans la province du Limpopo, en Afrique du Sud. Les résultats de l'étude montrent que la disponibilité et l'accessibilité de l'eau, de la nourriture et de la médecine traditionnelle sont négativement affectées par l'augmentation des températures et la rareté des précipitations. Ces ressources sont peu rencontrées et, là où elles existent, elles sont de mauvaise qualité. Cependant, les membres de cette communauté avaient recours à des pratiques technologiques modernes telles que l'approvisionnement en eau auprès du système municipal de distribution d'eau, l'achat de denrées alimentaires chez des détaillants et la vaccination contre les maladies dans les établissements de soins de santé modernes. Il peut être déduit de cette étude que les conditions préalables de la promotion de la santé des populations autochtones sont sensibles au climat. Elles deviennent disponibles et accessibles dans des conditions climatiques favorables, et sont rares dans des conditions climatiques défavorables ; une situation qui compromet la pratique de la promotion de la santé des population autochtones. (Global Health Promotion, 2021; 29(1): 58–64)

Description d'un système intégré de surveillance de la santé en ligne dans une institution portugaise d'enseignement supérieur : le programme e.cuidHaMUstm

Maria Piedade Brandão, Pedro Sa-Couto, Gonçalo Gomes et Pedro Beça

Contexte : L'Organisation mondiale de la Santé et l'Organisation internationale du Travail reconnaissent que la santé sur le lieu de travail n'est pas seulement affectée par les risques professionnels, mais est principalement affectée par les déterminants sociaux et les facteurs individuels. Une accélération de l'augmentation des maladies non transmissibles a renforcé l'importance de créer des environnements favorables et d'encourager des comportements sains. Par conséquent, une approche opérationnelle visant à rendre les lieux de travail sains et durables est nécessaire. Cet article décrit le développement d'un programme de surveillance de la santé en ligne intitulé « Système intégré de surveillance de la santé en ligne pour la gestion de la santé dans les universités » (e.cuidHaMUsTM) comme solution possible pour cette approche opérationnelle.
Méthodes : Nous avons développé le programme e.cuidHaMusTM qui propose de détecter les comportements à risque liés aux maladies non transmissibles et de mettre en œuvre des mesures de résolution de problèmes en instaurant un lieu de travail promoteur de santé dans une institution portugaise d'enseignement supérieur. Basé sur le modèle conceptuel « I-Change », notre programme fournit des avis personnalisés ; améliore les connaissances, les attitudes et les bonnes pratiques liées à la santé ; et encourage les actions qui promeuvent les modes de vie sains au travers de la capacitation individuelle en santé. En mettant l'accent sur l'évaluation comme activité générant des connaissances, le programme e.cuidHaMUsTM rassemble toutes les informations de santé pertinentes, partage les résultats avec les décideurs et évalue les changements politiques liés à la santé sur le lieu de travail.

Discussion : Cet article présente la conception du programme e.cuidHaMUsTM, le développement d'une plateforme de cybersanté pour partager les informations entre les différentes parties prenantes, et un questionnaire permettant d'évaluer l'état de santé des travailleurs d'une institution d'enseignement supérieur (e.cuidHaMUs.QueST®). Les procédures pour la collecte et l'analyse des données sont également présentées. Le programme e.cuidHaMUsTM peut favoriser la surveillance de la santé au travers d'études intersectorielles et longitudinales, et fournir des données scientifiques pour soutenir les interventions prévues et la promotion de modes de vie sains. Ce programme est un effort visant à intégrer une culture holistique des lieux de travail promoteurs de santé dans les politiques des établissements d'enseignement supérieur. (Global Health Promotion, 2021; 29(1): 65–73)

Une proposition de formulaire abrégé pour la version turque du Questionnaire européen d'enquête sur la littéracie en santé : une étude de développement et de validation auprès d'étudiants universitaires

Mehmet Ali Sungur, Zerrin Gamsizkan et Demet Hanife Sungur

Le Questionnaire européen d'enquête sur la littéracie en santé a été traduit en turc à la suite d'une étude de validité et de fiabilité, mais il n'en existait aucun formulaire abrégé global. Dans cette étude, nous avons eu pour but de proposer un formulaire abrégé de la version turque du Questionnaire européen d'enquête sur la littéracie en santé qui comprend 47 items. Les données ont été obtenues à partir d'une étude intersectorielle qui incluait un total de 686 étudiants, 345 hommes et 341 femmes, menée dans neuf facultés différentes d'une université à l'aide de la version turque du Questionnaire européen d'enquête sur la littéracie en santé. Le processus de développement du formulaire abrégé a été mené en utilisant une analyse en composantes principales avec analyse factorielle exploratoire, et des analyses de corrélation et de régression. Le processus de validation a été effectué à l'aide d'une analyse factorielle confirmatoire et d'une analyse de régression. Sur la base des résultats, un formulaire abrégé en 12 items a été élaboré, en conservant le cadre conceptuel du Questionnaire européen d'enquête sur la littéracie en santé. Dans cette étude intersectorielle, il a été démontré que le formulaire abrégé possédait des propriétés psychométriques adéquates avec une fiabilité élevée, une bonne validité, un niveau élevé et modéré de corrélation, et un bon ajustement du modèle avec l'ensemble de données indépendant. Il a été démontré que le formulaire abrégé développé dans cette étude était valide et fiable pour mesurer facilement et rapidement la littéracie en santé en Turquie. (Global Health Promotion, 2021; 29(1): 74–85)

Le rôle essentiel de la promotion de la santé pour une couverture sanitaire universelle efficace

Trevor Shilton et Margaret M. Barry

La Déclaration politique de la Réunion de haut niveau des Nations unies sur la couverture sanitaire universelle : œuvrer ensemble pour un monde en meilleure santé (2019) a fourni une réaffirmation importante du fait que la santé était une condition préalable du développement durable et de l'équité, ainsi que du rôle des soins primaires comme pierre angulaire de la couverture sanitaire universelle. La promotion de la santé, la prévention et les soins de santé durables vont de pair. La promotion de la santé peut favoriser une utilisation plus efficace des ressources de santé en réduisant la demande en services de santé coûteux et en diminuant le nombre d'hospitalisations. Promouvoir la santé physique et mentale, et aborder la littéracie en santé et les déterminants sociaux de la santé permet aux gouvernements et aux ministères chargés de la santé (i) d'autonomiser les citoyens et les communautés afin qu'ils prennent le contrôle de leur propre santé, et (ii) de mieux soutenir des soins de santé innovants et financièrement durables. Sans les fondements qui sous-tendent une promotion de la santé efficace, les trésoreries et les systèmes de santé auront du mal à faire face aux coûts croissants de la mauvaise santé. (Global Health Promotion, 2021; 29(1): 92–95)

Le lien entre COVID-19 et mode de vie : clore le débat

Sathyanarayanan Doraiswamy, Sohaila Cheema et Ravinder Mamtani

Un récent débat qui a attiré notre attention est celui dans lequel la maladie à coronavirus 2019 (COVID-19) a été désignée (dans le titre d'un événement en ligne) comme une maladie liée au mode de vie par le Collège royal britannique des médecins généralistes (Royal College of General Practitioners) qui s'en est ensuite excusé avant de retirer cette mention. Dans le présent commentaire, nous démystifions les maladies liées au « mode de vie » et replaçons cela dans le contexte du classement traditionnel des maladies qui est fait en santé publique en maladies transmissibles et non transmissibles (MNT). Des données probantes indiquent que les modes de vie défavorables pour la santé, en plus de causer des MNT, peuvent aussi entraîner une diminution de l'immunité et/ou causer des lésions organiques qui exposent les individus à des maladies, et à leurs conséquences, qui sont traditionnellement définies comme « transmissibles », comme la COVID-19. La COVID-19 a démontré le lien entre les maladies transmissibles et les MNT comme jamais auparavant, d'une manière on ne peut plus claire. Deux messages importants qui ont émergé de cette pandémie sont les suivants : (1) il existe une proximité étroite entre les maladies transmissibles et les MNT ; et (2) les modes de vie individuels, en matière d'hygiène personnelle, peuvent influencer l'occurrence, la sévérité et la prévention des maladies transmissibles telles que la COVID-19. (Global Health Promotion, 2021; 29(1): 96–100)

Une réponse communautaire connectée face à la COVID-19 à Toronto

Garrett T. Morgan, Blake Poland, Suzanne F. Jackson, Anne Gloger, Sarah Luca, Norene Lach et Imara Ajani Rolston

Dans ce commentaire, nous décrivons les enseignements initiaux tirés d'un projet de recherche communautaire qui a exploré en quoi l'espace relationnel entre les résidents et les institutions officielles de six communautés marginalisées de Toronto, dans l'Ontario, au Canada, a eu un impact sur les réponses communautaires aux situations de stress sanitaire et psychosocial qui ont été générées et amplifiées par la pandémie de maladie à coronavirus 2019 (COVID-19). Nos recherches ont montré que les dirigeants communautaires s'efforçaient de combler les manques laissés par les systèmes officiels de santé publique et de gestion des urgences de Toronto, et étaient essentiels pour atténuer les impacts psychosociaux et socioéconomiques de la pandémie qui ont exacerbé les inégalités et les défaillances systématiques préexistantes. Nous suggérons que le fait de développer la résilience communautaire dans les communautés marginalisées de Toronto peut inscrire la promotion de la santé dans une action où les membres de la communauté, les acteurs organisationnels, institutionnels et gouvernementaux créent les infrastructures sociales nécessaires pour s'appuyer sur les atouts et le travail au niveau local afin de promouvoir la santé en renforçant l'action communautaire, en plaidant pour des politiques publiques favorables à la santé et en créant des environnements favorables. (Global Health Promotion, 2021; 29(1): 101–104)

Effets des actions de prévention et de lutte contre le SRAS-CoV-2 : l'importance de jeter des ponts entre la santé publique et les interventions de prise en charge des violences sexistes

Claudia Gómez López

L'Organisation mondiale de la santé (OMS) est favorable à la quarantaine qu'elle considère comme l'un des dispositifs les plus efficaces pour lutter contre le SRAS-CoV-2. Toutefois, cette mesure de santé publique a des effets différenciés. Les chiffres de Bogota, district de la capitale de Colombie, montrent que cette mesure est en conflit avec la garantie et la non-violation d'autres droits. Une fois la quarantaine obligatoire instaurée à Bogota, le nombre de cas de violence à l'égard des femmes signalés a augmenté de plus de 200 %. Le District,

conscient du risque que représente pour les femmes l'isolement social en cohabitation avec leur (leurs) agresseur(s), a mis en œuvre cinq interventions pour prévenir les violences, accompagner les victimes et atténuer le risque de féminicide.
Les interventions mises en œuvre ont montré qu'en dépit des avancées normatives et politiques, il est nécessaire de renforcer, pendant la pandémie et à long terme, la réponse institutionnelle aux violences sexistes, notamment l'activation et l'assouplissement de la filière de prise en charge, le renforcement du système de protection et, en particulier, l'articulation interinstitutionnelle et intersectorielle pour apporter une réponse globale qui débouche sur le rétablissement des droits. L'expérience de Bogota appelle au dialogue entre les actions que la situation sanitaire impose et les droits fondamentaux dans le cadre de la prise en charge d'une crise sociale et sanitaire, et invite à dépasser les interventions cliniques et épidémiologiques pour aboutir à des stratégies plus globales, en matière de bien-être de la population. (Global Health Promotion, 2021; 29(1): 154–161)

Projet pilote de promotion de la santé pour lutter contre la double consommation de cannabis et de tabac dans les universités : ÉVICT-Universidad

Víctor J. Villanueva, Eva Herrera-Gutiérrez, Susana Redondo-Martín, Manuel Isorna et Adelaida Lozano-Polo

Introduction : L'université est le lieu de formation des futurs professionnels des domaines éducatif, sanitaire et social. La mise en œuvre de programmes de formation, de prévention de la toxicomanie et de promotion de la santé auprès des étudiants à l'université a un double impact, sur l'individu lui-même et, compte tenu du rôle de médiateur qu'ils peuvent jouer, sur la communauté universitaire en général. L'objectif du travail est, à partir d'un projet pilote de recherche-action, d'établir un cadre de promotion de la santé pour lutter contre la double consommation de cannabis et de tabac dans le contexte universitaire, en impliquant la communauté universitaire comme agent de changement.
Méthodologie : Étude descriptive de la mise en place, de la couverture et des résultats préliminaires du Projet pilote ÉVICT-Universidad.
Résultats : Entre 2018 et 2020, le projet ÉVICT-Universidad a été mis en œuvre dans 11 universités. Des étudiants en milieu universitaire ont été formés en tant que médiateurs et des activités communautaires de sensibilisation et d'information ont été menées en vue de promouvoir la santé et la prévention de l'usage du cannabis et du tabac, l'accent étant mis en particulier sur la double consommation de ces substances. Au total, 1471 personnes ont bénéficié d'une aide au cours des trois années de mise en œuvre.
Conclusions : L'expérience pilote permet d'identifier les points forts, ceux qui mériteraient d'être améliorés et les résultats prometteurs en matière de connaissances, contribuant ainsi à l'adoption de modes de vie favorable à la santé dans les universités. En particulier, l'accent est mis sur la contribution de ce projet à la formation d'étudiants pour qu'ils deviennent des agents de promotion de la santé et, à partir de là, sur le pouvoir d'agir de la communauté universitaire elle-même. (Global Health Promotion, 2021; 29(1): 162–171)

Editorial

Una nueva sección en la revista *Global Health Promotion*: La investigación en la promoción de la salud

Louise Potvin[1] y Didier Jourdan[2]

Desde el comienzo se ha planteado la inquietud sobre cuál es el corpus de conocimiento que puede servir de base para las políticas y las prácticas de la promoción de la salud. Con el paso de los años, y con el aumento considerable de la base de conocimientos científicos disponible, esta pregunta ha tomado un cariz radicalmente diferente. De hecho, si antes fue cuestión de apoyarse en los resultados de investigación raros y heterogéneos, este ya no es el caso hoy. Durante mucho tiempo descrita como una empresa multidisciplinaria (1) y ecléctica desde el punto de vista de los métodos (2), la investigación en promoción de la salud se constituye gradualmente en un campo distinto, es decir, en un espacio en el cual los investigadores comparten una identidad, marcos de pensamiento, métodos de producción de conocimientos y un marco ético explícito (3).

Con el objetivo de formalizar la constitución de un campo diferente para la investigación en promoción de la salud y de movilizar a los investigadores que en ella participan, desarrollamos el proyecto de publicación de un *Global Handbook of Health Promotion Research* (4). Para basar concretamente nuestra estructuración del campo en las prácticas puestas en marcha en proyectos liderados por los investigadores que se identifican con ella, lanzamos una extensa convocatoria para el envío de contribuciones. Este llamado tuvo un éxito que sobrepasó ampliamente nuestras expectativas. Puesto que recibimos más de 80 capítulos, provenientes de todos los continentes, tuvimos que optar por producir y publicar un manual ¡en tres volúmenes!

El subtítulo del primer volumen es *Mapping Health Promotion Research*. Este ofrece un amplio panorama de la investigación que se realiza en la promoción de la salud y cómo esta se desarrolla. Comprende 50 capítulos en los cuales los investigadores describen en detalle las prácticas que adelantan en los proyectos y programas de investigación. Nuestra síntesis de este material nos permitió identificar de forma inductiva los puntos de referencia para determinar tres dimensiones de estructuración del campo de la investigación en promoción de la salud: las políticas y prácticas estudiadas para la investigación (objetos de estudio), las modalidades de producción de conocimiento (dimensión epistemológica) y aquello que fundamenta la legitimidad de la investigación (dimensión ética).

El segundo volumen tiene como subtítulo *Framing Health Promotion Research*. Contempla un enfoque integral y profundo de lo que estructura el campo de la investigación en promoción de la salud. Las tres dimensiones arriba descritas (marco ético, epistemología y objetos de estudio) son su columna vertebral. Cada una de estas dimensiones es presentada y discutida en detalle en cortos capítulos didácticos.

El tercer volumen, cuyo subtítulo es *Doing Health Promotion Research*, también está compuesto por cortos capítulos didácticos, escritos por autores que tienen una profunda experiencia profesional en un paradigma, una estrategia de investigación o un método pertinente para la investigación en la promoción de la salud. Estos diferentes capítulos representan introducciones a dichos paradigmas, enfoques y métodos, y son presentados y discutidos de acuerdo con los desafíos específicos de la investigación en promoción de la salud que buscan solucionar.

Conscientes del hecho que los paradigmas, los enfoques y los métodos presentados en el volumen 3 no pueden pretender constituir una descripción exhaustiva de las prácticas de investigación en promoción de la salud y que, además, este campo

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evoluciona rápidamente, creemos importante ofrecer un espacio para continuar publicando, recopilando y poniendo a disposición de todos este material. Por tanto, en asocio con la UIPES y su publicación científica *Global Health Promotion*, creamos una nueva sección que recibirá artículos que constituyan una introducción a un paradigma, una estrategia de investigación o un método relevante para la promoción de la salud. Los artículos serán sometidos al riguroso proceso de revisión de la revista y el conjunto de la colección constituirá un registro metodológico dirigido a la comunidad de investigadores en promoción de la salud. Esta nueva sección se inscribe entonces como un complemento viviente y evolutivo del volumen 3 del *Global Handbook of Health Promotion Research*. Las consignas específicas para el envío de artículos para esta nueva sección están disponibles en las directivas a los autores, en la página de Internet de *GHP*. Los encargados de esta nueva sección serán los editores del *Global Handbook*: Didier Jourdan y Louise Potvin.

Esta iniciativa, aunque modesta, no es menos ambiciosa. Asumir el reto de estructurar una base de conocimiento apropiada es decisivo para el desarrollo de políticas y prácticas de la promoción de la salud a escala mundial en toda la diversidad de contextos culturales, sociales y económicos. De un lado, es una cuestión de reconocimiento, y de otro, de desarrollo de las capacidades.

Permitir que el campo de la investigación en promoción de la salud sea claramente identificado y a la vez reconocido, es una palanca importante para amplificar las investigaciones mediante el acceso de los investigadores a los apoyos político y financiero necesarios para sus trabajos. De hecho, las modalidades de evaluación de proyectos por pares todavía llevan con frecuencia a una exclusión de los sistemas de investigación que se salen de los marcos disciplinarios dominantes en el mundo académico. Este reconocimiento es también esencial para hacer atractivo nuestro campo y para las carreras de los investigadores que a él se dedican.

Estructurar la investigación en promoción de la salud como un dominio diferente es un paso fundamental para apoyar los esfuerzos de profesionalización de los intervinientes en promoción de la salud y para el fortalecimiento de los sistemas de promoción de la salud. Con el fin de aumentar y conservar su pertinencia a medida que evoluciona la práctica, tal cuerpo de conocimiento requiere ser alimentado por una investigación diferente, sin cerrarse forzosamente a los aportes puntuales de otras disciplinas. Se necesita también definir un marco para identificar las prácticas de investigación que conduzcan a la producción de conocimientos relevantes para la constitución de un campo de investigación propio de la promoción de la salud. Es claro que los conocimientos producidos en otros dominios del saber, como la epidemiología, la sociología, la ciencia política, la psicología comunitaria, la educación y tantos otros, aunque muy útiles, no son suficientes para informar plenamente las prácticas y las decisiones relacionadas con la promoción de la salud.

Es el momento de entrar en una etapa de formalización de lo que fundamenta nuestro campo de investigación, de compartir una visión, unos enfoques y unas herramientas. Todos juntos, con la diversidad de nuestros anclajes científicos, culturales y geográficos, concretaremos esta ambición. Todos juntos podremos darle el lugar que merece la investigación en promoción de la salud dentro del concierto de investigaciones en salud.

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Efectos de las acciones de prevención y control del SARS-CoV-2: la importancia de tender puentes entre la salud pública y las intervenciones para la atención de las violencias de género

Claudia Gómez López

Resumen : La Organización Mundial de la Salud (OMS) respalda la cuarentena como uno de los mecanismos más efectivos para el control del SARS-CoV-2. Sin embargo, dicha medida en salud pública trae consigo impactos diferenciados. Las cifras de Bogotá, Distrito Capital de Colombia, evidencian que esta medida entra en conflicto con la garantía y la no vulneración de otros derechos. Una vez instaurada en Bogotá la cuarentena obligatoria, el número de reportes de casos de violencia contra las mujeres aumentó en más del 200%. El Distrito, consciente del riesgo que supone para las mujeres el aislamiento social en convivencia con el (los) agresor(es), activó cinco intervenciones para la prevención de las violencias, el acompañamiento a las víctimas y la mitigación del riesgo feminicida. Las intervenciones implementadas pusieron de manifiesto que, pese a los avances normativos y de política pública, es necesario fortalecer, durante la pandemia y en el largo plazo, la respuesta institucional a las violencias de género, en términos de activación y flexibilización de la ruta de atención, fortalecimiento del sistema de protección y, en particular, la articulación interinstitucional e intersectorial para dar una respuesta integral que derive en el restablecimiento de derechos. La experiencia de Bogotá insta al diálogo entre las acciones en salud y los derechos fundamentales en el marco de la atención a una crisis social y de salud, y a trascender las intervenciones clínicas y epidemiológicas dando lugar a estrategias más integrales, en términos de bienestar poblacional.

Palabras clave : coronavirus, violencias de género, intervenciones en salud pública

Introducción

Una vez la Organización Mundial de la Salud (OMS) declara el brote del coronavirus como pandemia global, emite una serie de medidas de salud pública. Medidas individuales o de protección personal como la higiene de manos y precauciones, respiratorias, otras relativas al entorno, como el distanciamiento físico, incluido el aislamiento de casos y cuarentena de contactos, así como directrices comunitarias dirigidas a grupos de población concretos (1).

La cuarentena resultó ser una de las medidas más efectivas para el control de la pandemia, sin embargo, generó efectos adversos en algunos grupos poblacionales. Organismos internacionales han llamado la atención sobre el aumento de la violencia contra las mujeres obligadas a convivir de manera permanente con sus agresores, así como sobre el aumento de la violencia sexual contra niñas y adolescentes, la ciberviolencia y el acoso y discriminación contra el personal de salud, que en su mayoría está conformado por mujeres (2).

Las cifras de Bogotá, Distrito Capital de Colombia, evidencian que el aislamiento obligatorio entra en conflicto con la garantía y la no vulneración de otros derechos. Una vez instaurada la cuarentena, el

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número de casos que se reportaron a la línea de atención para víctimas de Violencias Basadas en el Género (VBG) de la Secretaría Distrital de la Mujer, aumentó en un 230%. Sin embargo, el número de denuncias por violencia intrafamiliar y de pareja ante las autoridades competentes fue menor que en los meses de marzo a mayo del 2019, así como el número de feminicidios.

Con el fin de hacer una lectura de los impactos diferenciados de la respuesta al SARS-CoV-2 en el caso de la ciudad de Bogotá, el artículo indaga, en primer lugar, por el comportamiento de las violencias de género durante la primera fase del confinamiento obligatorio (marzo a mayo del 2020). En segundo lugar, se hace una revisión de las acciones emprendidas por la Secretaría Distrital de la Mujer de Bogotá para mitigar el impacto de la cuarentena en la salud y vida de las mujeres y las niñas; para finalmente dar cuenta de aquellas intervenciones que, a pesar de ser una respuesta coyuntural a causa del coronavirus, podrían implementarse de manera permanente en línea con la estrategia de la Ruta Crítica planteada por la Organización Panamericana de la Salud (OPS), la cual aboga por la mejora de la respuesta durante el primer contacto que hacen las víctimas ante las instituciones con competencia en la prevención, denuncia y atención a las víctimas de las VBG (3).

Antecedentes

El fenómeno de la violencia contra las mujeres está presente en todas las estructuras sociales y es una de las evidencias más claras de las desigualdades entre hombres y mujeres. Según el Modelo Ecológico de Lori Heise, la violencia contra las mujeres se expresa a nivel individual, es decir se debe a factores del entorno inmediato de la víctima. También se produce en el nivel comunitario, en el que se destaca la falta de redes comunitarias de apoyo para y entre mujeres. Así mismo, las VBG tienen expresiones en el nivel macro, el cual tiene que ver con la ausencia o la permisividad de la violencia en las políticas y normas (4).

Para dar respuesta al fenómeno de la violencia contra las mujeres, en Colombia, desde 1996, se han emitido numerosas normas para la prevención y atención a las víctimas. Una de las más recientes, la Ley 1257 del 2008, reconoce el carácter multidimensional de las VBG y ordena acciones integrales de atención, sanción, prevención y restablecimiento de derechos (5).

Las acciones emprendidas desde el nivel macro se basan en su mayoría en el diseño de rutas de atención en las que se definen las competencias para cada una de las instituciones del Estado que deben intervenir. De igual modo, la respuesta estatal ha llevado a que se creen entidades del orden nacional y territorial especializadas en la materia. Por ello, Colombia cuenta con la Consejería Presidencial para la Equidad de la Mujer (6) y Bogotá, con la Secretaría Distrital de la Mujer, creada en el 2012 (7), la cual ha puesto en marcha una serie de acciones que se constituyen en la puerta de entrada de las mujeres víctimas a la ruta integral de atención.

El primer contacto es fundamental para la activación de lo que la OPS ha llamado la Ruta Crítica, que hace referencia al "proceso que se construye a partir de la secuencia de decisiones tomadas y acciones ejecutadas por las mujeres afectadas por la violencia intrafamiliar y las respuestas encontradas en su búsqueda de soluciones" (3). La ruta es entonces un continuo de eventos que dependen no solo de las acciones de las mujeres sino también de otros factores sociales e institucionales que intervienen en la respuesta a las necesidades de las víctimas.

El primer contacto puede darse a través de la solicitud de información sobre algún servicio relacionado con la atención a la violencia, ya sea personalmente, por teléfono o vía electrónica, o acudiendo directamente a una autoridad competente o a una red de protección estatal. De esta forma, en gran medida, todas las autoridades del Estado podrían llegar a ser, en determinado momento, el primer contacto de una mujer víctima de violencia.

Por lo tanto, de la eficiencia en su actuación durante el contacto inicial depende, con frecuencia, la posibilidad de salvar vidas; en particular si las violencias se producen en el marco de una crisis social, humanitaria o de salud pública, como la generada por el coronavirus.

Una vez decretada la cuarentena obligatoria, fueron interrumpidos los mecanismos de activación de la ruta de atención a las VBG, por lo que cobraron relevancia las acciones encaminadas a restablecer el primer contacto de las víctimas con la institucionalidad y las redes de apoyo.

Declarada la pandemia, la Alcaldía Mayor de Bogotá, a través del lineamiento 091 del 19 de marzo del 2020 (8), limitó la libre circulación de

vehículos y personas en el territorio del Distrito Capital. La medida, que en principio se expidió con fines pedagógicos para ser ejecutados en el transcurso de cinco días, se extendió hasta el 31 de mayo del 2020, periodo durante el cual el gobierno distrital desplegó al menos cinco intervenciones para mitigar el impacto del confinamiento en la vida e integridad de mujeres y niñas.

Métodos

Los estudios ecológicos son aquellos que ahondan en la descripción de una situación de salud en poblaciones humanas. Por su parte, los estudios exploratorios buscan construir hipótesis sobre dicha situación. Por ello, para establecer los efectos de las directrices para atender la crisis de salud pública por la COVID-19 en el aumento de las violencias de género, se hizo una revisión de cuatro tipos de fuentes secundarias que dan cuenta del comportamiento general del fenómeno y que por lo tanto presentan limitaciones en términos de desagregación de la información y análisis individual de los casos.

El primer tipo de fuente de información hace referencia a la normatividad nacional (9) y distrital (8) emitida para la mitigación de la pandemia. El segundo, a la revisión de los registros administrativos de acceso abierto sobre violencia contra las mujeres disponibles en el Sistema Integrado de Información sobre Violencias de Género (SIVIGE) de los meses de marzo, abril y mayo del 2020 (10). Para ello se seleccionaron cuatro variables de análisis (violencia intrafamiliar, violencia de pareja, presunto delito sexual y feminicidio) con el fin de establecer el comportamiento de los diferentes tipos de violencia que padecen las mujeres y las niñas. En tercera instancia, se usó la información que reporta quinquenalmente la Encuesta Nacional de Demografía y Salud, fuente que permite dar trazabilidad en el tiempo al estudio del fenómeno de las VBG (11).

Con el fin de caracterizar las acciones implementadas por la Secretaría de la Mujer para la activación de la ruta de atención a las VBG durante el confinamiento, se hizo una revisión de la información sobre las atenciones a las víctimas durante los meses de referencia (marzo a mayo del 2020). Los datos están disponibles en boletines e informes emitidos por el Observatorio de Mujeres y Equidad de Género de Bogotá (12). Adicionalmente, se entrevistó a la Subsecretaria de Fortalecimiento de Capacidades y Oportunidades para las Mujeres, ya que es la persona a cargo de la implementación de la política de prevención y atención de las violencias contra las mujeres en el Distrito Capital y por ser la funcionaria designada para la activación de las acciones para la atención a víctimas en el marco de la pandemia.

La entrevista, que duró 90 minutos, versó sobre tres aspectos o categorías de análisis: (i) la descripción de los *mecanismos puestos en marcha para activar la ruta de atención* y de otras acciones para la protección de las víctimas, así como sobre los retos para su implementación, (ii) las *discrepancias entre el número de casos o denuncias por VBG y el volumen de atenciones* brindadas por la Secretaría de la Mujer a mujeres y niñas durante el confinamiento, y (iii) la *pertinencia de las acciones en respuesta a la crisis*, así como sobre las lecciones aprendidas y el plan de fortalecimiento de las estrategias.

Cabe anotar que las fuentes de información utilizadas, por ser de carácter público, están anonimizadas, es decir no revelan datos personales. Así mismo, en la entrevista a la funcionaria de la Secretaría de la Mujer no se indagó por casos específicos, la conversación se centró en las acciones implementadas, sus resultados y retos.

En definitiva, a lo largo del artículo se hace un análisis descriptivo y comparado de la información estadística obtenida a través de fuentes secundarias, así como de enunciados cualitativos, para dar cuenta de la operatividad del concepto de la Ruta Crítica en el marco de la crisis de salud pública por coronavirus en el caso de las acciones implementadas en la ciudad de Bogotá para la mitigación del aumento de las VBG.

Discusión

Se estima que en el mundo, 243 millones de mujeres entre 15 y 49 años han sido víctimas de violencia física y/o sexual a manos de su pareja, 137 mujeres son asesinadas a diario por un miembro de su familia y que menos del 40% de las mujeres que sufren violencia buscan algún tipo de ayuda (13).

En Colombia, la violencia contra las mujeres se mide desde 1990 a través de la Encuesta Nacional de Demografía y Salud (ENDS). Para ese momento, más del 30% de las mujeres habían sido maltratadas psicológicamente por su compañero, casi el 20%

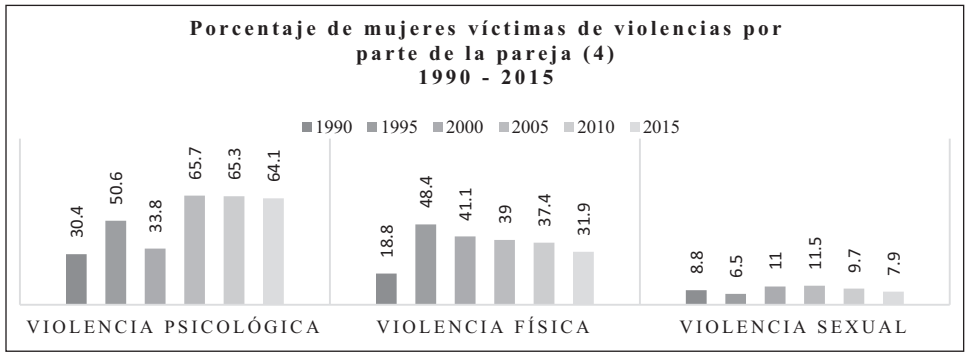

Figura 1. Porcentaje de mujeres víctimas de violencias por parte de la pareja.
Fuente: Encuesta Nacional de Demografía y Salud (ENDS) 1990-2015.

Tabla 1. Tipos de violencia. Bogotá. Marzo-mayo, 2019–2020.

Tipo de violencia	*Marzo-mayo 2019*	*Marzo-mayo 2020*
Violencia intrafamiliar	5,014	4,372
Violencia de pareja	3,215	1,987
Exámenes médico legales por presunto delito sexual	1,168	642
Feminicidio (19)	26	22

Fuente: Instituto Nacional de Medicina Legal y Ciencias Forenses. Boletín mensual. Marzo a mayo del 2020.

golpeadas y el 8.8% obligadas a tener relaciones sexuales (11). Para el 2015, el 64.1% de las mujeres reportó violencia psicológica, el 32% violencia física y, aproximadamente, el 8% violencia sexual por la pareja (Figura 1) y solo el 20% de las víctimas había interpuesto una denuncia (11).

Adicionalmente, la evidencia sobre epidemias pasadas, incluidas las causadas por los virus del ébola (14) y de zika (15), sugiere que la violencia contra las mujeres puede cambiar de naturaleza y de escala a medida que los brotes afectan la vida social y económica. Por lo tanto, para las mujeres que ya están en relaciones abusivas, o en riesgo de tal abuso, quedarse en casa dando cumplimiento a la cuarentena aumenta el riesgo de violencia de pareja.

En el Reino Unido, un proyecto de seguimiento de la violencia contra las mujeres señaló que las muertes por violencia doméstica se habrían duplicado (16 muertes) durante el confinamiento en comparación con la tasa promedio de los últimos 10 años (16). Así mismo, el Sistema Nacional de Seguridad Pública (SESNPS) de México contabilizó 324 presuntas víctimas de feminicidio a junio del 2020 (17), y en Colombia durante los meses de marzo a abril del 2020, las llamadas a la línea nacional de atención a las VBG aumentaron en un 160% (18). En el caso de la ciudad de Bogotá, el crecimiento de las llamadas a la línea púrpura fue del 230% (12).

Si bien hay evidencia sobre el aumento de las VBG en el marco del confinamiento obligatorio, los datos reportados por las autoridades competentes refieren un número menor de denuncias por violencia intrafamiliar, de pareja y sexual, así como de feminicidios, tal como lo evidencia la Tabla 1 para el caso de Bogotá en los meses de marzo, abril y mayo del 2020 con respecto al 2019.

La reducción del número de denuncias en relación con el alto volumen de solicitudes de apoyo a la línea púrpura se puede explicar a partir de tres hipótesis. La primea tiene que ver con el miedo de las mujeres a que se exacerbe la violencia al denunciar y tener que convivir permanentemente con el agresor. En segundo lugar, es preciso considerar que, por las restricciones de movilidad, las mujeres y las niñas acudieron en menor medida a las instancias ante las cuales se interponen las denuncias; a esto se suma que durante la cuarentena operó un reducido número de las entidades a cargo de las VBG (11).

Así mismo, se estima que varios de los casos ocurridos en Bogotá se atendieron a través de las líneas telefónicas del orden nacional, como la línea 155 o la línea 192 del Ministerio de Salud y Protección Social, especializada en atención en salud mental, por lo que no es claro si fueron registrados como violencia de género y remitidos a la debida ruta de atención.

La discrepancia entre los datos también invita a pensar en la importancia de los puntos de contacto de las víctimas con las autoridades competentes en el marco de una crisis, ya sea social, política o de salud pública. En Bogotá se fortalecieron o implementaron cinco estrategias para la activación de la ruta de atención durante la pandemia. Las dos primeras responden al primer objetivo del ingreso a la Ruta Crítica, es decir, a la obtención de información pertinente para saber lo que sucedió y la situación de la víctima, a fin de definir el tipo de atención y protección que necesita y quiere.

La primera intervención es el fortalecimiento de la línea de orientación telefónica o línea púrpura. Los equipos que atendían los asuntos de género en las 20 localidades que componen la ciudad pasaron a ser parte del personal de atención de la línea. Así mismo, se habilitaron chats por WhatsApp para las mujeres que no pueden pedir ayuda porque se encuentran junto a su agresor y se ampliaron los horarios de atención.

La línea púrpura es un mecanismo de acompañamiento y no de denuncia, por lo que se modificaron los protocolos de direccionamiento y la ruta de atención de acuerdo con la disponibilidad de la oferta institucional, ya que la mayoría de las Comisarías de Familia y las unidades de la Fiscalía General de la Nación, instancias en las que se interponen las denuncias, no estaban operando de manera presencial.

La Secretaría reporta que diariamente se atendían entre 70 y 80 llamadas, pero, a partir del confinamiento, el número de llamadas aumentó a 297 y los contactos por WhatsApp, que no superaban las 70 conversaciones al día, llegaron a 215.

El segundo mecanismo son los *espacios seguros* que se basan en la construcción de una red para la activación de la ruta de atención a través de puntos de información ubicados en lugares que habitualmente visitan las mujeres. Por ello, el Distrito hizo una alianza con cuatro cadenas de supermercados y farmacias con amplia cobertura en la ciudad. Actualmente, se cuenta con 573 puntos de activación, a través de los cuales 19 mujeres han solicitado información y apoyo (12).

Las víctimas que acudieron entre marzo y mayo del 2020 a los servicios de la Secretaría de la Mujer dicen haber sido sufrido violencia psicológica en un 48%, física 25%, económica 15% y sexual 2% (12); de ahí la importancia del segundo objetivo de la activación de la ruta, es decir la estabilización de la salud física y mental de las víctimas mediante la atención de emergencia.

Durante el confinamiento, las mujeres requirieron en su mayoría atención psicosocial y jurídica, lo que llevó a poner en marcha una tercera estrategia de atención a las víctimas: las *duplas de género*. Los equipos están constituidos por una abogada y una psicóloga y hacen seguimiento a los casos que lo requieran y aseguran el curso de la ruta de atención, la cual involucra al sistema de salud y a los sectores de justicia y protección. Las duplas, que aumentaron de tres a siete durante el confinamiento, acompañan los casos de alto riesgo, o riesgo de feminicidio, a mujeres que no tienen redes de apoyo o con discapacidad. Antes del confinamiento, las duplas atendían en promedio 32 casos semanales, pero durante el periodo de estudio se hicieron aproximadamente 45 acompañamientos semanales (12,20).

De acuerdo con la OPS, el tercer elemento a considerar en el momento del primer contacto o apertura de la Ruta Crítica, es la protección de la vida de la víctima y salvaguarda de la integridad física y emocional de las mujeres y las niñas. La cuarta estrategia liderada por el Distrito Capital da cuenta de ello: las casas refugio.

La capacidad de las casas era de 42 personas, pero, para mantener el distanciamiento físico requerido, esta se redujo a la mitad, lo que obligó a la Secretaría a adaptar el espacio, elaborar protocolos de bioseguridad y ampliar la capacidad con un segundo refugio, ya que antes de la pandemia la ocupación era de 50 estancias, pero, durante el periodo de estudio, se requirieron entre 8 y 10 cupos adicionales, siendo mayo el mes en el que hubo una demanda de hasta 69 cupos (20).

Así mismo, para salvaguardar la vida de mujeres y niñas, la quinta intervención puesta en marcha buscó reducir el riesgo de la violencia feminicida. Para ello, la Secretaría de la Mujer le solicitó al Instituto Nacional de Medicina Legal y Ciencias Forenses (INMLCF) la información sobre los casos clasificados

a través de la escala de valoración del riesgo feminicida. Se evidenció que de los 312 casos valorados a lo largo del año, el 84% corresponde a mujeres en riesgo grave o extremo, lo que llevó a la articulación del ya existente Sistema Sofia (Sistema Orgánico, Funcional, Integral y Articulador) con una mesa de trabajo del nivel distrital en la que participan todas las instituciones con competencia en la prevención y atención a las violencias de género (19).

El volumen de casos presentados durante el confinamiento ha llevado a que se amplíen los mecanismos para solicitar apoyo (línea púrpura y espacios seguros), así como la capacidad de las casas refugio, es decir las acciones de estabilización de las víctimas. De acuerdo con la Subsecretaria de Fortalecimiento de Capacidades y Oportunidades, desde que se implementó la cuarentena pueden acceder al beneficio de las casas refugio tanto las mujeres que cuentan con una medida de protección, como quienes aún la están tramitando y se encuentran en alto riesgo de feminicidio, lo que evidencia la eliminación de barreras de acceso a las atenciones (20).

Por su parte, el alto porcentaje de casos en riesgo grave y extremo de feminicidio condujo a la consolidación de una mesa de trabajo en el marco del Consejo de Seguridad de la ciudad, dedicada exclusivamente al seguimiento de las valoraciones realizadas por el INMLCF con el fin de evitar la muerte de más mujeres y niñas y dar celeridad, en especial, a las acciones de protección.

Las acciones implementadas por la Secretaría de la Mujer dan cuenta de los esfuerzos por adoptar los lineamientos de la OPS respecto a la activación de la Ruta Crítica, así como de algunas de las debilidades del sistema de atención a víctimas como la necesaria presencialidad para denunciar y, por lo tanto, para activar las atenciones. La ruta se concibe como integral e intersectorial, no obstante, requiere de una serie de trámites para su funcionamiento que la hacen poco flexible y, en esa medida, poco ajustada a las necesidades y realidades de las mujeres, aún más en el contexto de la pandemia por el coronavirus o de cualquier otra crisis de salud pública (20).

Conclusiones

La respuesta a una crisis de salud pública tiene consecuencias sobre otros procesos sociales, en particular para poblaciones históricamente vulnerables, como las mujeres víctimas de violencia de género. La cuarentena obligatoria limitó el acceso a la ruta de judicialización, atención y protección, y, en esa medida, limitó la garantía de los derechos de las víctimas de las violencias de género consagrados en el marco normativo, en especial los derechos a la integridad, a la vida y a estar libre de violencias.

Los efectos de las acciones para la mitigación del SARS-CoV-2 en las violencias de género han evidenciado que para dar respuesta a este fenómeno en el marco de una crisis de salud pública es preciso implementar, adaptar y ampliar las estrategias para el reporte de los casos y activación de la ruta. Se deben flexibilizar los mecanismos para interponer la denuncia y que esta no sea requisito para la activación de servicios esenciales como la estabilización física y emocional de las víctimas, así como para su protección.

De igual modo, se deben fortalecer los esquemas de acompañamiento a las víctimas teniendo en cuenta no solo las afectaciones físicas y emocionales, sino también las económicas y sociales, particularmente los impactos sobre sus hijos e hijas (2).

Una crisis social también exige el uso adecuado y expedito de los sistemas de información que permitan establecer la magnitud del evento y el número de atenciones requeridas, así como estimar el riesgo de la violencia feminicida y materializar el principio de integralidad de la Ruta Crítica.

Por su parte, el subregistro causado por las dificultades para denunciar será a futuro un reto para la salud pública en términos de la vigilancia de los casos y sus efectos en la salud física y emocional de las víctimas. Pero a su vez es una oportunidad para priorizar el desarrollo de acciones orientadas a la promoción de la salud y el bienestar con enfoque de género en eventuales crisis de salud pública.

El estudio de caso de Bogotá genera interrogantes frente a las acciones implementadas a nivel nacional. Colombia tiene 1.103 municipios y solo 11 cuentan con una Secretaría de la Mujer o ente articulador de las acciones para promoción de la equidad de género y la prevención de las violencias contra las mujeres. En aras de fortalecer la respuesta a las VBG en el marco de una crisis de salud pública, a futuro es importante tener en cuenta factores tales como la conectividad, la presencia de redes de apoyo comunitarias y la oferta institucional en los territorios.

Finalmente, las estrategias implementadas en la ciudad de Bogotá invitan a un intercambio de experiencias y adopción de buenas prácticas a nivel regional y global. La aparición de nuevas enfermedades infecciosas, así como los efectos del cambio climático seguirán generando crisis sociales y de salud, por lo que urge diseñar e implementar acciones que tengan en cuenta los impactos diferenciales y la garantía de los derechos humanos. La pandemia por el coronavirus ha puesto de precedente la vigencia de la salud pública como una responsabilidad estatal y ciudadana en aras de la protección de la salud, entendida como un derecho esencial, individual, colectivo y comunitario que se ejerce en función del mejoramiento de las condiciones de bienestar y calidad de vida (21).

Declaración de conflicto de intereses

Ningún conflicto declarado.

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Proyecto piloto de promoción de la salud en consumo dual de cannabis y tabaco en universitarios: ÉVICT-Universidad

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Resumen

Introducción: La universidad es el lugar de formación de los futuros profesionales de los ámbitos educativo, sanitario y social. La implementación de programas de formación, prevención de adicciones y promoción de la salud con universitarios provoca un doble impacto, sobre el propio individuo y, dado su papel mediador, sobre la comunidad universitaria en general. El objetivo del trabajo es, partiendo de un proyecto piloto de investigación-acción, establecer un marco de promoción de la salud en contraposición al consumo dual de cannabis y tabaco en el contexto universitario, involucrando a la comunidad universitaria como agente de cambio.

Metodología: Estudio descriptivo de la implementación, cobertura y resultados preliminares del Proyecto piloto ÉVICT-Universidad.

Resultados: Entre el 2018 y el 2020 se implementó el Proyecto ÉVICT-Universidad en 11 universidades. Se formó a estudiantes universitarios como mediadores y se realizaron actividades comunitarias de sensibilización e información orientadas a la promoción de la salud y la prevención del uso de cannabis y tabaco, con especial foco en el consumo dual de estas sustancias, alcanzando a un total de 1471 beneficiarios en los tres años de implementación.

Conclusiones: La experiencia piloto permite detectar fortalezas, aspectos de mejora y resultados prometedores sobre el nivel de conocimientos, contribuyendo a la adopción de estilos de vida saludables en el ámbito universitario. En especial, se destaca la contribución a la formación como agentes promotores de salud de estudiantes y, por tanto, el empoderamiento en salud desde la propia comunidad universitaria.

Palabras clave: Educación superior, prevención de drogas, cannabis, tabaco, universidades promotoras de salud, promoción de la salud

Introducción

Los Objetivos de Desarrollo Sostenible de la Organización de las Naciones Unidas (ONU), en su meta 3, plantean la necesidad de mejorar el estado de salud y bienestar de la población de todas las edades. Entre sus propósitos se encuentra el impulso de actuaciones de prevención y tratamiento del abuso de sustancias, tales como el tabaco, el alcohol y otras sustancias psicoactivas.

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Tabla 1. Porcentaje de consumo de tabaco y cannabis de estudiantes universitarios en diferentes estudios.

Autores y año del estudio	*Universidad*	*Consumo de tabaco*	*Consumo de cannabis*
Martínez *et al.* (7)	Cataluña	29.7% fumadores de los cuales 11.3% consumo ocasional 18.4% consumo diario	11.5% consumo diario u ocasional, hombres mayores probabilidades de consumo (OR = 2.81)
Hernández-Serrano *et al.* (8)	Girona	17.4% consumo diario 17.8% chicos y 16.9% chicas	4.8% consumo diario 7.1% chicos y 1.9% chicas
Izquierdo-Santervás y Redondo (9)	León, Salamanca, Vigo, Huelva, Jaén, Granada, Alicante, Valencia, Cantabria, Valladolid y Castilla La Mancha		17.3% en los últimos 30 días 21.1% chicos y 15.8% chicas
Merchán *et al.* (10)	Huelva	39.9% en el último año 39.2% en los últimos 6 meses 35.3% en los últimos 30 días 35% chicos y 40.6% chicas	39.2% en los últimos 12 meses 33.3% en los últimos 6 meses 21.6% en los últimos 30 días 45% chicos y 38.34% chicas
Fernández *et al.* (11)	León, Salamanca, Vigo, Huelva, Jaén, Granada	15.9% consumo diario	44% consumo cannabis
Lozano y Herrera-Gutiérrez (12)	Murcia	16.3% consumo diario 13.4% consumo ocasional 16.2% chicos y 16.6% chicas (sin diferencias significativas por género)	48% consumo en alguna ocasión; 53.1% chicos y 46.1% chicas (sin diferencias significativas por género) 14.9% en los últimos 30 días 1.5% consumo diario

Diferentes iniciativas promueven potenciar en la universidad su objetivo de responsabilidad social (1–4) y su papel como entorno promotor de la salud (5), en consonancia con una de las cinco áreas de acción prioritarias recogidas en la Carta de Ottawa (6).

Existen diferentes trabajos epidemiológicos sobre el consumo de tabaco y cannabis en la población universitaria española (Tabla 1), aunque la metodología y los indicadores de consumo son heterogéneos. Los resultados indican datos de consumo de tabaco entre un 29.2% y un 53.1% en el último año; y entre 15.9% y 18.4% en el consumo diario. Para cannabis, se sitúa entre el 39.2% y el 50.6% en el último año; entre el 21.6% y el 30.2% en el último mes; y entre el 15.9% y el 18.4% en el consumo diario. Cabe resaltar que el consumo de tabaco más frecuente (30 días y diario) es significativamente superior en las chicas y el de cannabis en los chicos, con diferencias porcentuales mucho mayores. Todos estos datos facilitan un análisis de la situación de consumo de ambas sustancias en el contexto universitario español.

Hay una fuerte relación entre los consumos de tabaco y cannabis fundamentada en distintos procesos. Ambas sustancias se fuman y con frecuencia su consumo es co-administrado a través del formato porro, donde se mezcla tabaco y cannabis.

Este consumo dual produce sensibilización cruzada a cada sustancia, con el tabaco potenciando directamente el efecto subjetivo del cannabis (13–15). Asimismo, la nicotina es más adictiva que el tetrahidrocannabinol (THC), por lo que fumar tabaco puede ser un conductor de uso continuado y recaída en usuarios co-dependientes (16). De igual modo, es posible que el consumo de tabaco aumente conforme aumenta el consumo de cannabis (17), sobre todo cuando se produce el consumo co-administrado. A esta relación de interacciones se le ha denominado "nudo" cannabis-tabaco (18), trasladando la idea de que la interdependencia establecida entre ambas sustancias trasciende el hecho de que sean co-administradas.

La etapa universitaria es un periodo de transición que conjuga distintos factores de riesgo, como el proceso de independencia del núcleo familiar (19) y el estrés ante nuevos retos sociales y académicos (20,21). Aparecen nuevos retos y oportunidades, como la necesidad de planificar y gestionar el tiempo de ocio, donde la influencia del grupo de iguales sigue teniendo importancia (22,23). La alta disponibilidad y accesibilidad a las drogas, las expectativas positivas en relación con los efectos y la baja percepción del riesgo (24), son claves en el proceso decisional sobre el consumo.

Distintos estudios longitudinales han demostrado que el inicio temprano e intensivo del consumo de cannabis se asocia con menor finalización de estudios universitarios (25–27). Otros estudios (8) encuentran que el uso combinado de cannabis y tabaco, ya sea concurrente o simultáneo, está moderadamente relacionado con un bajo rendimiento académico en población universitaria.

Es importante reducir la prevalencia y frecuencia de consumo de estas sustancias en el colectivo que ya las consume, pero también fortalecer el comportamiento del grupo mayoritario de no consumidores, promoviendo estructuras en el contexto universitario que les permita visibilizarse e involucrarse como agentes promotores de salud y de prevención del consumo de drogas. Es decir, organizar los esfuerzos de la sociedad para proteger la salud de las personas y para prevenir la enfermedad por medio de acciones colectivas (28).

El objetivo del trabajo es, partiendo de un proyecto piloto de investigación-acción, establecer un marco de promoción de la salud en contraposición al consumo dual de cannabis y tabaco en el contexto universitario involucrando a la comunidad universitaria como agente de cambio.

Materiales y método

Se trata de un estudio descriptivo de la implementación, cobertura y resultados preliminares de un proyecto piloto de investigación-acción. Desde este planteamiento, el Proyecto ÉVICT-Universidad es una intervención comunitaria en el colectivo universitario que promueve estilos de vida saludables en relación con el uso de tabaco y cannabis. Potencia la participación activa del alumnado como mediadores en salud y promotores de estrategias de reducción y abandono del consumo de tabaco y cannabis. El Proyecto plantea trabajar en cooperación con la REUPS (Red Española de Universidades Promotoras de Salud) (29) y con la RIUPS (Red Iberoamericana de Universidades Promotoras de la Salud) (30) como estrategia para su sostenibilidad. Aprovechando las estructuras propias de cada universidad, se integra el Proyecto en la planificación de acciones que desarrollan.

Las bases teóricas y metodológicas en las que se vertebra el Proyecto ÉVICT-Universidad son:

- Estrategias propuestas por la Global Network for Tobacco Free Healthcare Services (GNTH) (31). Supone trabajar con implicación de todos los sectores de la comunidad universitaria (profesorado, alumnado, personal de administración y servicios), planteando políticas universitarias de espacios libres de drogas, que dificulten su acceso y refuercen conductas saludables.
- Acciones fundamentadas en los modelos preventivos de influencia social (percepción de riesgo, modificación de falsas creencias y creencias normativas, ajuste de expectativas, disminución de la tolerancia social hacia el consumo) y promoción de habilidades para la vida (habilidades sociales, habilidades de resistencia y de toma de decisiones), utilizando metodologías interactivas, ya que estos modelos y metodologías son las que poseen mayor apoyo empírico (32).
- Actuaciones basadas en las recomendaciones internacionales (33,34), tales como la detección precoz de los consumos problemáticos y coordinación con las redes de prevención indicada o de tratamiento; y políticas universitarias que promuevan funciones de mentoría entre el alumnado para potenciar hábitos saludables.

Modelo de prevención e intervención

El Proyecto ÉVICT-Universidad contempla varios tipos de actuaciones dentro de la estrategia comunitaria de intervención (Tablas 2–5):

Criterios de selección

Se seleccionaron universidades interesadas en el Proyecto ÉVICT-Universidad tras su presentación en la Asamblea de la REUPS y en el VIII Congreso Iberoamericano de Universidades Promotoras de Salud celebrado en 2017. Como requisito, las universidades participantes tienen que comprometerse a integrar el Proyecto en las estructuras de Universidad Saludable, o en otras similares que permitan su desarrollo, y facilitar el acceso a recursos.

Aspectos éticos

Las intervenciones en el contexto universitario vinculadas a este proyecto se realizaron respetando los estándares éticos establecidos en la Declaración de Helsinki (35). Para seleccionar los participantes en la denominada "Porroencuesta" se usó una técnica de muestreo no probabilístico intencional. Esta encuesta se administró al colectivo universitario a través de estudiantes formados como mediadores en promoción de salud y los propios profesionales del Proyecto ÉVICT. Los criterios de selección de la muestra fueron la edad (entre 18 y 64 años) y la cumplimentación adecuada del cuestionario en línea. Se informó a los participantes de la voluntariedad de su colaboración, de acuerdo con la Ley Orgánica 3/2018 de Protección de Datos Personales y Garantía de los Derechos Digitales (36).

Resultados del Proyecto

Los resultados del Proyecto ÉVICT-Universidad están compilados en la Tabla 6. En 2018 se empezó a implementar en 4 universidades, con intervenciones sobre 111 estudiantes. En 2019 se extendió a un total de 10 universidades (9 españolas y 1 ecuatoriana), interviniendo sobre 456 estudiantes (276 españoles y 180 ecuatorianos) de manera presencial y 58 estudiantes (españoles) en línea. En colaboración con el "Proyecto En Plenas Facultades" (37), se incluyeron actividades formativas sobre el nudo cannabis-tabaco en otras 6 universidades. En 2020, a causa de la pandemia de la COVID19 se rediseñaron las acciones para adaptarlas a la situación de confinamiento utilizando metodología digital con 9 universidades y 846 beneficiarios. Entre el 2018 y el 2020 se implementó el Proyecto ÉVICT-Universidad en 11 universidades con un total de 1471 beneficiarios.

A modo de pilotaje, se analizaron las actitudes hacia los principales mitos sobre el nudo cannabis-tabaco mediante encuesta electrónica, antes y un mes después del taller virtual. Se observaron cambios en la concienciación del uso dual y del riesgo de adicción, con aumento de la percepción de riesgo del uso y exposición al humo y disminución de la normalización de la conducta (Tabla 7). Tras la formación se realizó una encuesta de valoración y satisfacción que reflejó una buena aceptación de la metodología virtual utilizada. Un 85.7% se siente capaz de elaborar materiales de sensibilización y un 78.6% de participar en acciones de información y sensibilización, tras el taller. Casi la mitad (46.4%) se muestran dispuestos a continuar colaborando con el proyecto. La principal dificultad estriba en captar al alumnado, siendo necesaria la implicación del profesorado sensible con

Tabla 2. Acción de formación de mediadores de salud.

Responsables	Destinatarios
Profesionales del Proyecto ÉVICT	Estudiantes de las universidades participantes
Objetivos	
Captar y formar a estudiantes con perfil proactivo como promotores de salud	
Características	
La formación se realiza mediante talleres grupales, workshops e intervenciones de dinamización social	
A nivel de contenidos, la formación sobre el consumo dual de cannabis y tabaco contempla aspectos relativos a: a) prevalencia del consumo de tabaco y cannabis en el medio universitario; b) farmacodinámica, interacciones en el proceso adictivo a ambas sustancias y en los procesos de cesación; c) mitos y falsas creencias sobre el cannabis (dinámica de grupo); d) estrategias de la industria del tabaco y del cannabis para captar nuevos consumidores; e) aspectos normativos y legislativos; y, f) metodología en elementos clave de la comunicación efectiva y sobre consejo sanitario basado en intervenciones motivacionales.	
Las dinámicas interactivas se fundamentan en el trabajo con vídeos de modelaje y juegos de rol, para realizar consejo de reducción o cesación en el consumo.	
Actuaciones de mediación realizadas: a) difusión de la Porroencuesta; b) acciones de sensibilización; c) elaboración de recursos informativo-educativos (grupos de 2 a 4 participantes, tras revisión de documentación de referencia y con supervisión técnica); y, d) presentación de los materiales elaborados.	

Tabla 3. Acción de sensibilización.

Responsables	Destinatarios
Profesionales del Proyecto ÉVICT	Comunidad universitaria
Miembros de servicios de salud de las universidades	
Alumnado mediador de salud	
Objetivos	
Sensibilizar sobre los riesgos del consumo de cannabis y tabaco, y los beneficios de una vida saludable	
Características	
Intervenciones de dinamización social y divulgación de información sobre el nudo cannabis-tabaco, a través de medios de comunicación de masas, mesas informativas y difusión de materiales de sensibilización (infografías, lonas, vídeos) disponibles en la web del Proyecto ÉVICT.	
Clases magistrales y seminarios en línea orientados a sensibilizar sobre: a) el consumo dual de cannabis y tabaco; b) factores psicosociales en la prevención del nudo cannabis-tabaco; c) beneficios de una vida sin cannabis-tabaco y estrategias para fomentarla; d) estrategias de la industria cannábica y tabacalera para normalizar el consumo y captar nuevos consumidores; e) protección de los menores frente a las estrategias de la industria del tabaco y del cannabis; f) normativa legislativa aplicable al cannabis y al tabaco; y, g) efectos del humo de segunda mano.	

Tabla 4. Acción de acercamiento de consumidores a la red asistencial.

Responsables	Destinatarios
Profesionales del Proyecto ÉVICT	Comunidad universitaria
Miembros de servicios de salud de las universidades	
Alumnado mediador de salud	
Objetivos	
Detectar y derivar al alumnado y/o al personal laboral universitario con consumos activos de tabaco, cannabis y/o consumo dual	
Características	
Detección e intervención precoz con consejo sanitario breve desde la óptica de las intervenciones motivacionales	
Derivación al recurso de la red asistencial normalizada correspondiente	

Tabla 5. Acción de coordinación e inclusión con otras redes y/o proyectos.

Responsables	Destinatarios
Profesionales del Proyecto ÉVICT	Comunidad universitaria
Miembros de servicios de salud de las universidades	
Objetivos	
Inclusión del Proyecto ÉVICT en las redes universitarias promotoras de salud	
Incorporación de contenidos sobre consumo dual de cannabis-tabaco en los planes de estudio de las universidades	
Características	
REUPS (Red Española de Universidades Promotoras de Salud)	
RIUPS (Red Iberoamericana de Universidades Promotoras de la Salud)	
Proyecto En Plenas Facultades de la Fundación Salud y Comunidad	
Integración de contenidos teórico-prácticos relativos al nudo cannabis-tabaco en los Planes de Estudios de Grado o Máster, de manera transversal o específica en asignaturas concretas	

el Proyecto ÉVICT-Universidad y las Oficinas de Universidades Saludables y la bonificación con créditos o puntos en asignaturas. Mayoritariamente son estudiantes no consumidores de drogas o, en todo caso, experimentadores. El alumnado de últimos cursos se siente más dispuesto a participar, con el problema que implica su salida del ámbito universitario para llevar a cabo acciones en este contexto.

También se pilotó la Porroencuesta como estrategia para establecer una evaluación del consumo de cannabis-tabaco en las universidades participantes, así como su patrón de consumo y ciertos aspectos asociados a este. Participaron 388 estudiantes universitarios, de los cuales el 53.9% fueron mujeres (n = 209) y el 46.1% hombres (n = 179), con una edad media de 23.11 años (DT = 6,189). El 26.3% de las mujeres y el 40.5% de los hombres reportaron consumo dual de cannabis-tabaco en los últimos 12 meses. Respecto al consumo en el último mes, el 11.4% de las mujeres y el 21.5% de los hombres habían presentado consumo dual, observándose un consumo a diario o casi a diario en un 25.4% de las mujeres y en un 47% de los hombres consumidores.

Discusión

En las últimas décadas se ha dado una especial importancia a los factores ambientales y contextuales (38,39) como elementos clave que pueden facilitar o dificultar los consumos de drogas. Las universidades pueden desarrollar una trascendente labor como agente de cambio cultural y social, contribuyendo a la salud y bienestar de sus miembros (29). La universidad, además de ser motor de investigación y formación de los profesionales del futuro, es un entorno vivo en el que interactúan factores ambientales, organizativos y personales que afectan a la salud y al bienestar.

La aplicación de este proyecto piloto en las universidades participantes durante estos tres años ha permitido:

1) Difundir en la comunidad universitaria el nudo cannabis-tabaco.
2) Incorporar el consumo dual cannabis-tabaco en el contexto universitario y en los Planes de Estudio.
3) Aumentar el nivel de información y conocimiento disponible por la comunidad universitaria respecto del nudo cannabis-tabaco.
4) Fomentar la sensibilización y participación de la comunidad universitaria en torno al nudo cannabis-tabaco.
5) Promocionar estilos de vida saludables frente al uso de tabaco y cannabis en la comunidad universitaria.
6) Formar al alumnado como agente promotor en salud perteneciente a la comunidad universitaria para generar un efecto "bola de nieve" en relación con las acciones relativas al nudo cannabis-tabaco.
7) Impulsar actuaciones que dificulten o cuestionen el consumo de sustancias como una opción segura de experimentación o de diversión.

El Proyecto ÉVICT-Universidad es una iniciativa innovadora al considerar el consumo dual de cannabis-tabaco, frente a otras intervenciones que se centran en una u otra sustancia o en ambas, pero sin considerar su consumo dual. Al mismo tiempo, plantea un modelo de prevención comunitaria que

Tabla 6. Universidades y colectivo estudiantil participantes en el Proyecto ÉVICT.

	2018	*2019*	*2020*
Universidades participantes	U. Murcia	U. Alcalá de Henares	U. Barcelona
		U. Barcelona (Campus Bellvitge)	U. La Rioja
		U. La Rioja	U. Murcia
		U. Murcia	U. País Vasco
	U. País Vasco (Campus Gipuzkoa)	U. País Vasco (Campus Álava, Vitoria)	U. Vigo
		U. Salamanca	U. Internacional de Valencia
		U. Vigo (Campus Pontevedra)	U. Valencia
	U. Vigo (Campus Pontevedra)	U. Zaragoza (Campus Teruel)	U. Valladolid
		U. Internacional de Valencia	U. Politécnica Salesiana (Ecuador)
	U. Zaragoza (Campus Teruel)	U. Politécnica Salesiana (sedes Guayaquil y Cuenca, Ecuador)	
Beneficiarios	111	514	846
Acciones formativas	3 workshop—4 horas	7 workshop—4 horas	1 workshop—4 horas
			1 taller en línea mediadores en salud—15 horas
		2 workshop—4 horas en Ecuador	1 curso en línea—30 horas
Acciones de sensibilización	Mesas informativas en Facultades de Universidad de Vigo	Participación en Feria de la Salud en Lorca. U. Murcia	3 Masterclass—2 horas
	Jornada sensibilización U. País Vasco	Celebración Día Mundial sin Tabaco. U. Barcelona	Webinar en línea con participantes mayoritariamente de 9 universidades, y con presencia inferior a 5 participantes de otras 9 universidades
	Jornada sensibilización U. Zaragoza (Campus Teruel)	Sesión de sensibilización. U. País Vasco (Campus Álava)	
		Mesa informativa sobre Objetivos de Desarrollo Sostenible. U. Murcia	
	Exposición de pósteres en U. País Vasco (Campus Gipuzkoa)	Día de Universidades Saludables. U. Murcia	
		Mesas Facultades de U. Vigo (Campus Orense)	
	Participación en Feria de la Salud en el municipio de Lorca. U. Murcia	Mesa informativa. U. La Rioja	
		Masterclass U. Internacional de Valencia	
		Taller en U. Politécnica Salesiana (sede Cuenca, Ecuador)	
Coordinación con otras redes y proyectos	REUPS (Red Española de Universidades Promotoras de Salud)	REUPS (Red Española de Universidades Promotoras de Salud)	REUPS (Red Española de Universidades Promotoras de Salud)
	Proyecto En Plenas Facultades de la Fundación Salud y Comunidad	RIUPS (Red Iberoamericana de Universidades Promotoras de la Salud)	RIUPS (Red Iberoamericana de Universidades Promotoras de la Salud)
		Proyecto En Plenas Facultades de la Fundación Salud y Comunidad	Proyecto En Plenas Facultades de la Fundación Salud y Comunidad

Tabla 7. Resultados de la evaluación de conocimientos tras la formación a mediadores promotores de salud.

Mito o falsa creencia consultada	*Respuesta correcta*	*Pre–Taller (n = 58)*	*Post–Taller (n = 31)*
		%	%
Fumar porro es más saludable que fumar tabaco	Totalmente falso	70.7	77.4
Los perjuicios de los porros se producen en las personas mayores o que llevan mucho tiempo fumando	Totalmente falso	62.1	87.1
Si empiezo a fumar porro, puedo dejarlo cuando quiera	Totalmente falso	34.5	41.9
Si se fuma poco, hay poco riesgo para la salud	Totalmente falso	60.3	77.4
Si el tabaco es legal, el cannabis también debería serlo	Totalmente falso	44.8	64.5
Si fumo porro, perjudico seriamente la salud de los que me rodean	Totalmente cierto	75.9	83.9
El porro relaja	No del todo cierto	51.7	38.7
Si dejas de fumar, engordas	Totalmente falso	43.1	45.2
Fumar porro (cannabis con tabaco) ayuda a que el tiempo pase más rápido	No del todo cierto	17.2	19.4
Si empiezas a fumar porro (cannabis con tabaco), es muy fácil que acabes convirtiéndote en adicto	Totalmente cierto	74.1	80.6
Si fumas cannabis con tabaco, respiras peor	Totalmente cierto	56.9	61.3
La mayoría de los jóvenes en España fuma porro	Totalmente falso	12.1	35.5
Si no fumas, estas más guapo/a	Totalmente cierto	50	61.3
Si se fuma poco, hay poco riesgo para la salud	Totalmente falso	56.9	83.9
Si no fumo porro (cannabis + tabaco) todos los días, eso significa que no estoy enganchado	Totalmente falso	62.1	67.7

cuenta con la propia comunidad universitaria como agente de cambio, buscando su integración dentro del marco de las redes universitarias promotoras de salud, tanto en España como en Iberoamérica. En sus actuaciones, el papel clave lo desempeña el propio alumnado formado como mediador y promotor de salud, usando la influencia entre pares como una herramienta esencial de promoción de salud y de prevención del consumo de drogas, cuya utilidad ha sido contrastada (30,40).

Entre los retos futuros están la realización de una evaluación previa de necesidades a través de la Porro-encuesta, que permitirá cuantificar las prevalencias y patrones de consumo dual de cannabis-tabaco en cada universidad, así como el ajuste de la propuesta de intervención desde el Proyecto ÉVICT-Universidad para atender de manera más específica a su realidad. También la consideración de incorporar acciones orientadas a la reducción de riesgos y daños entre los consumidores de cannabis y los que realizan el consumo dual de ambas sustancias. Este enfoque sería complementario al de la promoción de la salud y prevención del consumo.

Además, se han de sistematizar y homogenizar las acciones de sensibilización a través de tecnologías de la información y comunicación. En este sentido, se plantea la necesidad de realizar una evaluación de proceso y resultados más exhaustiva, que permita establecer más claramente el nivel de rigurosidad en su aplicación en este planteamiento comunitario, cuantificar su eficacia y considerar su diseminación en contextos culturales semejantes.

Conclusiones

El Proyecto ÉVICT-Universidad es una intervención comunitaria innovadora que aborda de manera integral el consumo dual de cannabis-tabaco, mediante la participación activa del alumnado universitario como agente de salud, tras integrarse en las estructuras propias de promoción de la salud en el contexto universitario. No solo es un instrumento para formar y sensibilizar al alumnado universitario en esta problemática, sino que además posibilita fomentar acciones que impidan o cuestionen el uso de sustancias como una

alternativa de experimentación de escasa peligrosidad o fuente de diversión.

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Romper el *statu quo* al promover políticas para la salud, el bienestar y la equidad: un preludio a la UIPES 2022

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Resumen:
La próxima reunión internacional de la familia mundial de la promoción de la salud se realizará en Montreal, en mayo del 2022. El tema central de esta 24ª Conferencia es "Promover políticas para la salud, el bienestar y la equidad". Los organizadores decidieron trascender la retórica de los "sospechosos de siempre" y plantear un programa que cuestione realmente los conceptos clave en que se basa la promoción de la salud. En esta contribución, miembros de los Comités científicos nacional de Canadá y mundial de la UIPES reflexionan sobre el estado de la situación actual y las posibilidades futuras. En tal sentido, proponen tres temas: (a) aprovechar las oportunidades que traen las perturbaciones y los puntos de inflexión de los desafíos de salud pandémicos, del cambio climático, de los cambios geopolíticos, del malestar social o de la promesa tecnológica; (b) liberarse de las perspectivas mundiales que favorecen únicamente las soluciones del mercado, las divisiones entre Norte y Sur, hacia las prácticas de la descolonización emancipadora y los sistemas de conocimiento; y (c) abrirse camino entre disciplinas, barreras, fronteras e identidades que están arraigadas en nuestras prácticas y entendimientos para la innovación.

Palabras clave: apoyo (apoyo mediático), colaboración/alianzas, determinantes de la salud, empoderamiento/poder, equidad/justicia social, salud mundial/globalización, promoción de la salud

La promoción de la salud, campo de práctica y investigación, evoluciona continuamente. La comunidad de la promoción de la salud es un movimiento mundial que acoge varias voces y, sin embargo, resulta difícil mantener un equilibrio entre técnicas y enfoques sofisticados y de vanguardia, por un lado, y los problemas de la salud prácticos y a menudo cruciales, por el otro. Las conferencias mundiales de la Unión Internacional de Promoción de la Salud y Educación para la Salud (UIPES), en su mayoría, han logrado mantener dicho equilibrio. La próxima reunión de la familia mundial de la promoción de la salud, la 24ª Conferencia que se realizará en Montreal en mayo del 2022, se enfocará en "Promover políticas para la salud, el bienestar y la equidad". Los organizadores de este encuentro decidieron trascender la retórica de los "sospechosos de siempre" que consiste en luchar por la equidad en

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salud (mediante discusiones sobre temas como los determinantes sociales de la salud y la salud en todas las políticas) para, en cambio, analizar las causas fundamentales de las inequidades en salud y sus determinantes estructurales, tales como los determinantes políticos, económicos, ambientales, culturales y sociales. Los comités científicos de la UIPES 2022 están planeando un programa que realmente cuestione los fundamentos y las orientaciones de las políticas en materia de salud, bienestar y equidad para la promoción de la salud. En esta contribución, miembros de los Comités científicos nacional de Canadá y mundial de la UIPES, reflexionan sobre el estado de la situación y las oportunidades futuras.

La promoción de la salud sigue siendo

> "...el proceso que permite a las personas, a los grupos y a las comunidades incrementar el control sobre los determinantes de su salud y mejorarla. Para alcanzar un estado de completo bienestar físico, mental y social, una persona o grupo debe estar en capacidad de identificar y realizar sus aspiraciones, de satisfacer sus necesidades y de cambiar o adaptarse al medio ambiente" (1).

Nuestra comunidad se posiciona como un movimiento social positivo que se compromete con puntos de vista optimistas de lo que determina la salud y el bienestar humanos, ecológicos y, de hecho, planetarios. También luchamos por la justicia social y la reducción de todas las inequidades (sociales, ecológicas, culturales o por cualquier otro parámetro) que influyen de manera adversa en la salud.

Sin embargo, en el momento en el que escribimos este comentario, la enfermedad por el coronavirus 2019 (COVID-19) está causando estragos en las poblaciones y en las economías, revelando no solo nuestra fragilidad frente a nuevas enfermedades infecciosas, sino también la influencia que sobre nuestro bienestar colectivo tienen el cambio climático, las inequidades sociales y raciales sistémicas, y las fallas de los sistemas políticos y económicos. Esta no ha sido considerada solamente una epidemia de proporciones mundiales (una "pandemia") sino una "sindemia", es decir, una coalescencia sistémica de eventos sociales y de salud que expone fallas críticas en todo el mundo (2). Horton (3), el editor de *The Lancet*, se alejó justificadamente del concepto más epidemiológico de "sindemia" que había propuesto Singer. La tragedia de la sindemia de la COVID-19 no solamente es el impacto inequitativo de una serie de desastrosas comorbilidades (clínicas) y el efecto de un mundo que permite la muerte de cientos de miles de personas en naciones superficialmente ricas y poderosas. La sindemia es también el resultado de una indiferencia perversa hacia grandes franjas de poblaciones desfavorecidas que mantienen precariamente a flote las economías neoliberales. Esto pone de relieve, entre otras cosas, que subestimamos e infravaloramos a millones de trabajadores esenciales. Somos testigos del alto precio que pagamos, en términos ambientales, sociales y de salud, por nuestras economías competitivas y de alta presión.

Sucesos como el asesinato de George Floyd en los Estados Unidos, el movimiento Las Vidas Negras Importan y los espantosos resultados inequitativos de la pandemia en muchas comunidades racializadas y desfavorecidas socioeconómicamente nos ofrecen un momento para hacer una pausa y reflexionar sobre las deficiencias de nuestros enfoques políticos. Sea o no apócrifa, optimista o cínica, la evidencia empírica en el campo de la investigación en políticas es clara: las emergencias y los desastres inspiran el cambio. Este concepto de momentos significativos y limitados de disrupción y potenciales cambios surge del trabajo de las corrientes múltiples de John Kingdon (4) y del denominado pensamiento "del equilibrio intermitente" (5).

Hacemos un llamado por una promoción de la salud que vaya un paso más allá en la promoción de políticas para la salud, el bienestar y la equidad: queremos reflexionar sobre cómo podría repensarse la integración de los servicios del Estado y la integración de la salud en todas las políticas para abordar de forma adecuada las inequidades que la promoción de la salud busca superar. Con la sindemia y los 70 años de historia del campo que llamamos promoción de la salud, viene la pregunta: ¿Cuáles son los contextos y los temas apremiantes de la promoción de la salud que anhelamos para las futuras generaciones?

Los organizadores de la UIPES 2022 identificaron tres temas para ayudarnos a reflexionar sobre la situación actual de la promoción de la salud, qué estamos haciendo bien y a qué podemos aspirar para entenderla mejor, comprometernos y cambiar. Temas que hemos enmarcado de la siguiente forma:

- Aprovechar las oportunidades que traen las perturbaciones y los puntos de inflexión de los desafíos de salud pandémicos, del cambio climático, de los cambios geopolíticos, del malestar social o de la promesa tecnológica.
- Liberarse de las perspectivas mundiales que favorecen únicamente las soluciones del mercado, las divisiones entre Norte y Sur, hacia las prácticas de la descolonización emancipadora y los sistemas de conocimiento.
- Abrirse camino entre disciplinas, barreras, fronteras e identidades que están arraigadas en nuestras prácticas y entendimientos para la innovación.

Las conversaciones que esperamos entablar en nuestra conferencia deberían ser atractivas, ingeniosas y llenas de humor. Deberían inspirar pero también retar. Sabemos que las decenas de miles de miembros, individuales e institucionales, afiliados o no, de la comunidad de la promoción de la salud son muy diversas. Lo que puede ser desafiante para algunos, puede resultar reconfortante para otros. Una práctica estándar en el Sur puede ser vista como una innovación radical en el Norte. Este comentario artículo intenta establecer un terreno común para todos nosotros.

Aprovechar las oportunidades de la disrupción mundial

Si bien el término "innovación disruptiva" proviene de una teoría de negocios (6) arraigada firmemente en las economías neoliberales que la promoción de la salud cuestiona, es un concepto que, no obstante, ha cobrado vida propia cambiando el enfoque en torno a eventos cruciales que reconfiguran las relaciones de poder y los objetivos de las agendas. En una reciente serie de blogs, el *BMJ* identificó 19 disruptivos de la salud mundial (7). En esta lista figuran brotes de enfermedades devastadoras (sida, síndrome respiratorio agudo grave (SRAG), ébola o las enfermedades no transmisibles (ENT)), grandes acontecimientos geopolíticos (fin de la guerra fría, el Convenio Marco para el Control del Tabaco, y la Nueva Ruta de la Seda (Iniciativa de la Franja y la Ruta)), cambios de importancia significativa (urbanización, migración, cambio climático) y nuevos actores y fenómenos (el complejo médico industrial y la influencia de grandes donantes privados/ONG).

Actualmente, se consideran también factores perturbadores el neoliberalismo, Viernes por el Futuro, la COVID-19, Wet'suwet'en Strong, Marches 4 Justice,[1] y las Vidas Negras Importan. Hay una renovada atención mundial a la equidad (en salud) y sus vías críticas, como el colonialismo y el racismo. Sin embargo, la promoción de la salud continúa siendo en gran medida política y ecológicamente ciega (afirmando ser "sin prejuicios"), enfocada casi por completo en los determinantes individuales o interpersonales de la salud y no en los ecológicos. La promoción de la salud, además, tiene dificultades para abordar de manera significativa las continuas inequidades que afectan a nuestras sociedades. Aunque el reporte de la Organización Mundial de la Salud (OMS) sobre los Determinantes Sociales de la Salud (8) allanó el camino para centrarnos en las inequidades en el poder con el fin de superar las inequidades sociales en la salud, necesitamos nuevas, mejores e impactantes formas de abordar estos problemas a través de la investigación, la práctica y las políticas.

Vemos a los "determinantes sociales" comenzar a tomar el camino de la "atención primaria de Salud de Alma Alta". Mills (9) realmente predijo los patrones que hemos presenciado durante las últimas décadas: en lugar de comprometer políticamente los activos comunitarios para mejorar la salud primaria (que fue la intención de la Declaración), una fundición tecnocrática y médico-clínica de la teoría y la práctica de la salud primaria parece habérsela quitado a la gente. Los enfoques de los determinantes sociales se están convirtiendo en ejercicios dominados tecnocráticamente con énfasis en indicadores y responsabilidades económicas, mientras que el objetivo central del programa era, y sigue siendo, sociopolítico. Lo mismo parece suceder con el potencial emancipatorio de los Objetivos de Desarrollo Sostenible (ODS). Estas disrupciones también ofrecen oportunidades para afianzar los sistemas actuales, tal como las anteriores perturbaciones alimentarias previas a la COVID-19 provocaron una proliferación de la producción industrial y del comercio, en lugar de la soberanía alimentaria (10). Esto hace que sea aún más importante de lo previsto organizarse contra tal consolidación de los sistemas que impactan de manera negativa a la salud humana. El marco de los

perturbadores mencionados nos ha hecho enfocarnos en las relaciones de eventos diversos como las conexiones entre la crisis climática, los derechos de los pueblos indígenas, la concentración de la riqueza y la violencia racializada. Estos eventos son disruptivos en sí mismos, pero es posible que no reconozcamos que las conexiones entre ellos pueden ser aún más perturbadoras y requieren políticas transversales o que los conecten.

Esta puede ser la ola perfecta para los (¿surfistas?) promotores de la salud. Nos permite darles sentido a dichos problemas y centrar toda la atención en la salud y el bienestar en todas las políticas. Los factores disruptivos identificados en el artículo del *BMJ* le dan forma a lo que hace la gobernanza mundial de la salud (de las epidemias a los refugiados de los cambios climáticos), cómo lo hace (de las campañas de vacunación a los acuerdos de intercambio comercial) y con quién (de actores estatales tradicionales a fundaciones privadas y movimientos sociales). Sin embargo, el cambio mundial y la gobernanza tienen dimensiones locales y comunitarias, y el compromiso entre niveles y jurisdicciones es importante para la identificación del cambio de sistemas (político o institucional). Por ejemplo, las ciudades (deberían) tener como objetivo rediseñar su entorno construido para mejorar la calidad del aire, la movilidad, la vivienda, el confort térmico y la sociabilidad para todos, pero especialmente para aquellos que viven con las consecuencias de una inequidad acumulada. Los estados (deberían) buscar la forma de mejorar el acceso a la salud y a los servicios de atención social para los más desfavorecidos. La salud y el bienestar nos dan las pistas para descubrir los disruptivos que producen resultados de salud cada vez peores e incrementan las inequidades en salud. Para los promotores de la salud, esto significa construir más salud, bienestar y equidad en otras políticas, involucrando aquellos actores que tienen diferentes problemas en mente, como los interesados en el medio ambiente, los planificadores urbanos, los activistas sociales o las industrias de infraestructura. La Conferencia ofrece una amplia oportunidad para saber cómo los promotores de la salud han trabajado con dedicados profesionales de diferentes áreas de la política. De hecho, la Conferencia es el espacio para demostrar que la promoción de la salud puede vivir totalmente por fuera del ámbito del sector de la salud.

Liberarse: descolonizar prácticas, sistemas, investigación y políticas de salud

El segundo subtema ofrece caminos alternativos para pensar y trabajar en la promoción de la salud y le da continuidad a la Declaración *Waiora* de los Pueblos Indígenas para la Salud Planetaria y el Desarrollo Sostenible (2019). Este documento, desarrollado durante nuestra más reciente Conferencia mundial, hizo un llamado a las comunidades de la promoción de la salud mundial para darles espacio y privilegiar las voces de los pueblos indígenas y su conocimiento a la hora de actuar para sanar nuestra relación con todos los seres de la Madre Tierra y enfocarnos en el desarrollo sostenible. Siglos de expansión de la construcción de imperios han creado sistemas e instituciones que configuran una injusticia generalizada, sistémica y continua en los ámbitos económico, social y de salud. En particular, los pueblos indígenas alrededor del mundo siguen sufriendo desproporcionadamente, sus sistemas de cultura, lazos familiares, sostenibilidad, ecología y conocimiento han sido destruidos deliberada y clandestinamente. Las inequidades de la salud son, por tanto, producto de una opresión sistemática y a largo plazo de los pueblos indígenas y de sus formas del saber (así como sus formas de promover la salud).

Sin embargo, la descolonización de la promoción de la salud va más allá de un enfoque único en los pueblos indígenas. Requiere crear espacios para diferentes tradiciones epistemológicas que enmarquen la forma en la que vemos el mundo, la forma en la que nos organizamos en él, las preguntas que nos planteamos y las soluciones que buscamos. Al integrar otras epistemologías, reconocemos la importancia de trabajar juntos de manera significativa con aquellos que a menudo han sido "los estudiados" para participar en la investigación en beneficio de todos, mediante enfoques de investigación participativa y controlada por la comunidad. Estos métodos participativos requieren que reflexionemos sobre nuestra posicionalidad en la investigación y sobre la manera en que podemos elevar las voces, las necesidades y las prioridades de la comunidad como aliados (11). *Waiora* también nos ayuda a comprender algunos de los problemas con la actual ideología neoliberal y, más ampliamente, nuestro sistema e ideología capitalistas que se enfocan en la extracción de recursos y en la acumulación individual de riquezas más que en las responsabilidades y en la reciprocidad.

Erondu *et al*. (12) afirmaban recientemente, al examinar una importante institución de salud pública, que "los legados coloniales y el neocolonialismo, definidos por algunos académicos como la práctica de fortalecer las estrategias colonialistas de control e influencia a través de acciones, comportamientos, actitudes y creencias, en su mayoría inconscientes, son los fundamentos de un modelo operativo sistémico que determina las oportunidades profesionales, las alianzas para la investigación y las prácticas de enseñanza". Esta visión colonial, o extranjera (13), es dominante y no solo un legado perdurable de la ambición imperial de unos pocos poderes blancos del Norte; es más insidiosa que esto, y se extiende al dominio de un sistema particular del conocimiento, el Cartesiano. Mweemba *et al*. (14) demuestran cómo la subrepresentación sistémica y sistemática del Sur global mantiene una ilusión de superioridad colonial, aunque las "colonias" como entidades son algo, sobre todo, del pasado. La "descolonización", por lo tanto, no es solamente el reconocimiento y la disculpa por un paradigma capitalista blanco, sino también la descentralización de la blanquitud, usando las herramientas de equidad racial y llevando el discurso de la descolonización a los países y a las poblaciones del Sur.

Para descolonizar la promoción de la salud y desarrollar políticas y programas de salud más eficaces y culturalmente seguros, las comunidades deben impulsar el proceso político de manera significativa. Es necesario garantizar un compromiso y una participación reales. Debemos cuestionar la noción de que los resultados de investigación de las sociedades occidentales dominantes (el Norte global) son directamente aplicables en otros contextos. En cambio, debemos generar conocimiento en, con y para las poblaciones indígenas y las comunidades minoritarias para promover la equidad en salud. Se necesita una investigación que involucre investigadores indígenas y miembros de la comunidad para superar y cerrar la brecha (15). Este proceso de investigación descolonizadora señala el camino para cocrear inteligencia y cambiar las dinámicas del poder con el fin de apoyar una innovación profunda y un cambio radical. Las herramientas de la promoción de la salud deberían incluir las innovaciones en métodos de investigación indígenas, tales como la narración oral, el Dadirri (práctica ancestral de escucha profunda) y el modelo de la doble óptica (Two-Eyed Seeing) (16).

Abrirse camino: innovación emancipadora

En la antesala de la UIPES 2022, la comunidad mundial de la promoción de la salud (la UIPES y otros organismos, así como legisladores, activistas e instituciones esenciales) necesita identificar las innovaciones claves que tienen el potencial de cambiar las formas de pensar sobre los problemas y sus soluciones. Necesitamos comenzar por identificar las personas, las comunidades y sus redes que pueden impulsar el cambio a nivel de políticas y sistemas. A menudo, la innovación empieza pequeña y toma tiempo en difundirse, pero su éxito se produce mediante la creación de redes para su descubrimiento, reconocimiento y divulgación. La UIPES 2022 debe permitir que esto suceda.

Las viejas innovaciones (la Inteligencia Artificial, por ejemplo) deben ser actualizadas con una potente óptica de promoción de la salud, bienestar y equidad (como podría ser la adopción de la Declaración de Montreal para un desarrollo responsable de la Inteligencia Artificial (17) en la UIPES 2022). Del mismo modo, la movilización social para la equidad y el bienestar ya hace parte de nuestro repertorio. Si siempre lo hacemos bien, o de manera responsable, vale la pena un examen crítico. Las redes mundiales (medios sociales) y la participación crean nuevas oportunidades para que más voces, si no todas, sean escuchadas. El liderazgo inspirado y "Aprender haciendo" (18) deben convertirse en parte integral del cambio de políticas.

Otro campo de innovación en la promoción de la salud es un entramado más significativo y deliberado de los sistemas de poder e intereses que impulsan el mantenimiento de las formas de trabajar, hacer y organizar los asuntos de "quién obtiene qué, por qué y cuándo" del juego político. Esta es la pura esencia de la promoción de la salud y, aparte de algunos ideólogos al margen, nuestro movimiento ha sido incapaz de integrar nuevas ideas, como la econología (19), la consumocracia (20), el cambio transformador intergeneracional y los sistemas de valores polarizadores, en un sólido programa de acción.

Aprovechamos las oportunidades, nos liberamos y abrimos camino de diferentes maneras, y les extendemos una invitación para reunirnos en el territorio tradicional Haudenosaunee/Anishinaabe de Tiohtià:ke (Montreal), en mayo del 2022. La disrupción de la sindemia generó la oportunidad de

organizar una conferencia híbrida (en persona y virtual) que permite que muchas más voces sean escuchadas y que muchas mentes estén unidas. Ayúdennos a continuar con estas perturbaciones fructíferas, a descolonizar nuestro patrimonio común mundial y a innovar para mejorar la salud, el bienestar y la equidad. Invitamos a promotores de la salud, a las comunidades, a activistas, académicos y, sobre todo, a los agentes políticos a que participen en la transformación de nuestro mundo en beneficio de todas las naciones y de nuestras relaciones con la Madre Tierra.

Declaración de conflicto de intereses

Ningún conflicto declarado.

Financiación

Ninguna financiación declarada.

Nota

1. March4Justice fue un gran evento (110.000 participantes en todo Australia) que exigía mayor transparencia, rendición de cuentas y respeto como respuesta a los abusos contra los derechos humanos y la violencia de género en Australia. Esta manifestación se convirtió en un detonante que despertó muchos rencores y frustraciones, incluidas las retenciones a los indígenas y el abuso contra niños y ancianos. Nos referimos aquí a Marches 4 Justice, en lugar de March4Justice, porque se espera que a esta, organizada el 15 de marzo del 2021, le sigan una serie de eventos del mismo estilo hasta que dichos problemas sean solucionados de una manera satisfactoria.

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Resúmenes

Distanciamiento social durante la COVID-19: amenaza y eficacia en el entorno universitario de siete países

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La COVID-19 se ha propagado muy rápido en todo el mundo y, hasta que se adopten ampliamente unas vacunas eficaces y seguras, las medidas preventivas como el distanciamiento social son cruciales para mantener la pandemia bajo control. Las preguntas de investigación del estudio contemplan los factores psicosociales que predicen el comportamiento del distanciamiento social y buscan determinar si existen diferencias entre los países en cuanto al distanciamiento social. Utilizando el Modelo de Procesamiento Paralelo Extendido (MPPE) como lente teórica, examinamos los efectos predictivos de la amenaza y la eficacia, y las variables demográficas sobre la adherencia al comportamiento preventivo de distanciamiento social contra la COVID-19, mediante una encuesta realizada a una muestra internacional de estudiantes universitarios. Con un modelado de trayectorias y un análisis de covarianza confirmamos los efectos predictivos del MPPE en el comportamiento del distanciamiento social. Nuestro modelo final mostró que la susceptibilidad percibida a la COVID-19 se asoció directa e indirectamente (mediante la eficacia en la respuesta) al comportamiento del distanciamiento social; que la gravedad percibida de la COVID-19 produjo un efecto indirecto significativo en el comportamiento del distanciamiento social a través de la autoeficacia y de la eficacia en la respuesta; que la susceptibilidad percibida se asocia indirecta y positivamente con el comportamiento del distanciamiento social mediante la eficacia en la respuesta, y que la autoeficacia y la eficacia en la respuesta fueron directamente asociadas con el comportamiento del distanciamiento social. Hubo, además, diferencias en el distanciamiento social según el país. Discutimos las posibles explicaciones y las implicaciones de estos hallazgos. (Global Health Promotion, 2021; 29(1): 5–13)

La COVID-19 y la promoción de la salud en Brasil: trabajadores comunitarios de la salud, entre vulnerabilidad y resistencia

Gabriela Lotta y João Nunes

La promoción de la salud en Brasil depende de los trabajadores comunitarios de la salud (TCS), proveedores de primera línea que conectan el sistema de salud con los grupos vulnerables. Los TCS brasileños son en su gran mayoría mujeres que provienen de entornos pobres, con condiciones de trabajo precarias y a veces riesgosas, y que han recibido un entrenamiento fragmentado y poco metódico. Este artículo evalúa cómo la pandemia de la COVID-19 exacerbó las vulnerabilidades preexistentes de los TCS (relacionadas con bajos salarios, condiciones de trabajo precarias y riesgosas, e inadecuada capacitación) y les trajo otras, con un profundo impacto en su capacidad para llevar a cabo actividades de promoción de la salud. Basado en testimonios de docenas de TCS y en discusiones en línea promovidas por sus sindicatos, el artículo revela que durante la pandemia, a los TCS se les pidió continuar con su trabajo sin el entrenamiento ni el equipo de protección adecuados, exponiéndolos así a un riesgo de infección. Además, muestra cómo la pandemia hizo peligrosa la interacción cercana con los pacientes, centro de su función de promoción de la salud. No obstante, los TCS buscaron adaptar su labor. En la ausencia de liderazgo y coordinación de parte del gobierno federal, los TCS movilizaron diferentes formas de resistencia a niveles nacional e individual. A pesar de esto, la COVID-19 contribuyó a una trayectoria de erosión de la promoción de la salud en Brasil. Los hallazgos señalan las dificultades para la promoción de la salud en países de ingreso bajo y mediano que dependen de los TCS para conectar el sistema de salud con los usuarios vulnerables. (Global Health Promotion, 2021; 29(1): 14–22)

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Respuesta psicológica a la pandemia de la COVID-19 en Canadá: principales factores de estrés y activos

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Antecedentes: La crisis de la COVID-19 tiene unas características únicas que incrementan la sensación de miedo y viene con unos factores estresantes adicionales (como confusión, discriminación, cuarentena) que pueden conducir a respuestas psicológicas adversas. Sin embargo, hay una comprensión limitada de las diferencias entre los contextos socioculturales en la respuesta psicológica a las pandemias y otros desastres.
Objetivo: Examinar cómo los canadienses en diferentes provincias, y con modos de gobierno y contextos socioculturales distintos, comprenden y reaccionan a la pandemia de la COVID-19.
Métodos: Se realizó un sondeo por internet entre el 8 y el 11 de abril del 2020, con una muestra representativa de 600 adultos canadienses de dos contextos diferentes ($n = 300$ en Quebec, la región francesa de Canadá, y $n = 300$ del resto del país). Dos resultados psicológicos fueron evaluados: posible trastorno de estrés postraumático (TEPT) y posible trastorno de ansiedad generalizada (TAG). También se analizaron las funciones de varios factores de estrés (como las amenazas percibidas contra uno mismo o la familia y los amigos, la cuarentena o el aislamiento, las pérdidas financieras, las víctimas de estigmatización), los activos (la confianza en las autoridades, la información recibida, el cumplimiento de las consignas) y las fuentes de información utilizadas en estos dos resultados. Se realizaron pruebas de chi cuadrado para examinar las diferencias en la distribución de posibles TEPT y TAG, de acuerdo con los factores de estrés y los activos.
Resultados: Se observaron posibles TEPT y TAG en el 25.5% y el 25.4% de los encuestados, respectivamente. Estas proporciones fueron significativamente más bajas en Quebec que en el resto de Canadá. Percibir un alto nivel de amenaza y ser una víctima de estigmatización fueron asociados positivamente con posibles TEPT y TAG (pero no cuarentena/aislamiento ni pérdidas financieras). Un alto nivel de confianza en las autoridades fue el único activo asociado con un bajo riesgo de TEPT o de TAG. De manera interesante, este activo se reportó con más frecuencia en Quebec que en el resto de Canadá.
Conclusión: La pandemia de la COVID-19 representa una oportunidad única para evaluar los impactos psicosociales en diferentes grupos y contextos socioculturales, con el fin de dejar importantes lecciones que puedan ayudar en la respuesta a futuros desastres. (Global Health Promotion, 2021; 29(1): 23–32)

Percepción, comportamiento, conocimiento y prácticas preventivas tempranas relacionadas con la COVID-19 entre los palestinos

Basma Salim Salameh, Sami Basha, Jihad Abdallah y Walid Basha

Es necesario comprender la percepción, el comportamiento y el conocimiento tempranos de la enfermedad por el coronavirus 2019 (COVID-19) y las prácticas preventivas relacionadas, para sugerir políticas e información accesible a la población palestina durante las primeras fases de la pandemia. El objetivo de esta investigación es contribuir a dicha comprensión con el fin de influir en las futuras políticas de prevención que puedan ser implementadas y adaptadas en Palestina para generar un nuevo modelo de prácticas reflexivas que haga frente a cualquier tipo de futura crisis epidémica. Se utilizó un diseño transversal para desarrollar el estudio durante tres semanas, en abril del 2020, y se difundió un sondeo en línea en todas las regiones de Palestina. Se recogió un total de 1.040 respuestas enviadas por personas mayores de 18 años. Encontramos un alto nivel de conocimientos relacionados con la COVID-19, incluyendo síntomas y características del virus, prácticas de prevención y grupos en riesgo. Los encuestados creen que son más susceptibles a la influenza que a la COVID-19 y que tienen más probabilidad de ser infectados por el virus de la influenza que por el virus de la COVID-19, pero esperan que la infección de la influenza sea menos severa que la infección de la COVID-19. Los participantes estuvieron más inclinados a ver la COVID-19 como preocupante y estresante que como un inductor de miedo. Cerca de dos tercios de los encuestados creen que las teorías

conspirativas relacionadas con los diferentes tipos de la COVID-19 son verdaderas en cierto grado. De cara al futuro, es importante y fundamental proporcionarles a las grandes poblaciones una conciencia básica sobre las enfermedades, la cual puede contribuir a influir de manera positiva en el conocimiento de las personas, sus actitudes y su percepción hacia dichas enfermedades y así combatir las teorías de la conspiración. (Global Health Promotion, 2021; 29(1): 33–43)

Comprender el panorama y la difusión de la desinformación sobre la COVID-19 y su corrección en Sina Weibo

Qinghua Yang, Zhifan Luo, Muyang Li y Jiangmeng Liu

La prevalencia de la desinformación sobre salud en las redes sociales podría influir significativamente en los comportamientos de salud de las personas. Con el fin de analizar los temas prevalentes, la difusión y la corrección de la desinformación con respecto a la enfermedad por el coronavirus 2019 (COVID-19), se desarrollaron análisis automatizados de contenido para las publicaciones en Sina Weibo, el sitio de microblogueo más grande de China. En total, se analizaron 177.816 publicaciones relacionadas con la desinformación sobre la COVID-19, durante el brote de la COVID-19 en China. El modelo de tema estructural identificó 23 temas válidos relacionados con la desinformación sobre la COVID-19 y su corrección, los cuales fueron posteriormente categorizados en tres temas generales. Se realizó un análisis de sentimiento para generar puntajes por sentimiento positivo y negativo para cada publicación. El modelo Poisson cero inflado indicó que solo el sentimiento negativo fue un indicador significativo del número de comentarios ($\beta = 0.003$, $p < 0.001$), pero no de reenvío de publicaciones. Además, los usuarios tienden más a compartir y comentar la información relacionada con prevención/tratamiento (como la de la medicina tradicional china para prevenir la COVID-19), así como las posibles amenazas de la COVID-19 (p.ej. la COVID-19 fue declarada una epidemia por la Organización Mundial de la Salud). Se debaten las implicaciones para la promoción de la salud y la educación para la salud. (Global Health Promotion, 2021; 29(1): 44–52)

Uso universal de mascarillas para prevenir la transmisión del SARS-CoV-2, una práctica en Taiwán

Chia-Wei Chao, Vivian Chia-Rong Hsieh, Chun-Yi Tan y Min-Hao Yuan

En la lucha contra la pandemia de la COVID-19, Taiwán, con su política universal del uso de mascarillas, ralentizó la transmisión de casos y aplanó su curva epidémica sin obligar a un confinamiento o a una cuarentena masiva en el 2020. Este estudio identifica las características distintivas de la política taiwanesa del uso universal de mascarillas, tales como la prioridad, el mejoramiento continuo, las alianzas entre todas las partes interesadas, la transparencia y la rendición de cuentas, y el altruismo y la solidaridad social. Al confrontar la incertidumbre a lo largo de la crisis de la COVID-19, este estudio sugiere que el uso de mascarillas, además de ser una barrera física o una intervención no farmacológica, puede ser adoptado como una plataforma política interactiva para empoderar al público a fin de estimular la colaboración intersectorial con miras a la innovación social y de crear efectos secundarios como acciones de confianza pública, altruismo y solidaridad. (Global Health Promotion, 2021; 29(1): 53–57)

Impactos del cambio climático en la promoción de la salud indígena: estudio de caso de la comunidad Dikgale en la provincia de Limpopo, Suráfrica

Sejabaledi A. Rankoana

Los determinantes más importantes de la promoción de la salud indígena son la disponibilidad y el acceso al agua, a los alimentos y a la medicina tradicional. Por esta razón, la Carta de Ottawa de 1986

para la Promoción de la Salud propuso incluir la alimentación, el agua y los ecosistemas en cualquier estrategia de promoción de la salud. Este estudio describe en qué medida el cambio climático, en forma de escasez de lluvias y de aumento de las temperaturas, repercute en la disponibilidad y el acceso al agua potable, a los alimentos y a la medicina tradicional como determinantes básicos de la promoción de la salud indígena. Se realizaron entrevistas en profundidad a 240 participantes seleccionados a propósito, de la comunidad Dikgale, en la provincia de Limpopo (Suráfrica). Los resultados del estudio muestran que la disponibilidad y el acceso al agua, a los alimentos y a la medicina tradicional son afectados de manera negativa por el incremento en la temperatura y la escasez de lluvias. Es difícil encontrar estos recursos, y cuando los hay, son de mala calidad. Sin embargo, los miembros de la comunidad recurrieron a modernas prácticas tecnológicas tales como abastecerse de agua del sistema municipal de reticulación, comprar productos alimenticios en las tiendas minoristas y acceder a la inmunización contra la enfermedad a través de modernas instalaciones sanitarias. Se puede deducir de este estudio que los prerrequisitos de la promoción de la salud indígena son sensibles al clima. Estos llegan a estar disponibles y a ser accesibles bajo condiciones climáticas favorables, y escasean cuando las condiciones climáticas no son las adecuadas, una situación que compromete la práctica de la promoción de la salud indígena. (Global Health Promotion, 2021; 29(1): 58–64)

Descripción de un sistema de monitoreo integrado de eSalud en una institución de educación superior en Portugal: el programa e.cuidHaMUstm

Maria Piedade Brandão, Pedro Sa-Couto, Gonçalo Gomes y Pedro Beça

Antecedentes: La Organización Mundial de la Salud y la Organización Internacional del Trabajo reconocen que la salud ocupacional no solo se ve afectada por los riesgos laborales, sino también por determinantes sociales y factores individuales. Un aumento acelerado de enfermedades no transmisibles ha fomentado la importancia de crear ambientes favorables y de estimular los comportamientos saludables. Por lo tanto, se necesita un enfoque operativo para hacer que los espacios de trabajo sean saludables y sostenibles. Este artículo describe el desarrollo de un programa de monitoreo de eSalud, denominado 'Sistema de monitoreo integrado de eSalud para la gestión de la salud en universidades (e.cuidHaMUsTM)', como una posible solución de dicho enfoque operativo.

Métodos: Desarrollamos el programa e.cuidHaMUsTM que propone detectar comportamientos de riesgo relacionados con las enfermedades no transmisibles e implementar medidas de solución mediante la creación de un espacio de trabajo favorable para la salud en una institución de educación superior en Portugal. Basados en el modelo conceptual integrado (I-Change), nuestro programa ofrece una retroalimentación personalizada, mejora el conocimiento relacionado con la salud, la actitud y las buenas prácticas, y estimula las acciones para promover estilos de vida saludables a través de la capacitación individual para la salud. Enfocado en la evaluación como una actividad que genera conocimiento, el programa e.cuidHaMUsTM reúne toda la información de salud pertinente, comparte los resultados con quienes toman las decisiones y evalúa los cambios en las políticas relacionadas con la salud en los lugares de trabajo.

Discusión: Este artículo presenta el diseño del programa e.cuidHaMUsTM, el desarrollo de una plataforma web de eSalud para compartir la información entre los diferentes interesados, y un cuestionario para evaluar el estado de salud de los trabajadores de una institución de educación superior (e.cuidHaMUs.QueST®). Así mismo, se señalan los procedimientos de la recolección de datos y su análisis. El programa e.cuidHaMUsTM puede mejorar la vigilancia de la salud a través de estudios transversales y longitudinales y proporcionar evidencia científica para apoyar las intervenciones y promociones previstas para fomentar estilos de vida saludable. Este programa es un esfuerzo para integrar una cultura holística de promoción de espacios de trabajo promotores de salud en las políticas de las instituciones de educación superior. (Global Health Promotion, 2021; 29(1): 65–73)

Una sugerencia para abreviar la versión turca del cuestionario europeo Health Literacy Survey: estudio de desarrollo y validación en estudiantes universitarios

Mehmet Ali Sungur, Zerrin Gamsizkan y Demet Hanife Sungur

El cuestionario de la Encuesta Europea sobre la Alfabetización en salud fue traducido al turco tras un estudio de validez y fiabilidad, pero no se dispone de una versión breve y completa. Nuestro objetivo fue sugerir un formulario corto de la versión turca de 47 preguntas del *European Health Literacy Survey Questionnaire*. Los datos se obtuvieron a partir de un estudio transversal realizado a 686 estudiantes, 345 hombres y 341 mujeres, de nueve facultades diferentes de una universidad, a quienes se les presentó la versión turca de la Encuesta Europea. El proceso de desarrollo del formulario corto se realizó utilizando análisis de componentes principales con uno exploratorio factorial, así como con estudios de correlación y regresión. El proceso de validación se hizo a partir de un análisis factorial confirmatorio y otro de regresión. Basados en los resultados, se redactó un formulario corto de 12 ítems, respetando el marco conceptual del *European Health Literacy Survey Questionnaire*. Se demostró que la versión corta tiene propiedades psicométricas adecuadas con una alta fiabilidad, una buena validez, un nivel de correlación alto y moderado y un buen ajuste del modelo con el conjunto de datos independientes en este estudio transversal. La versión corta que desarrollamos demostró ser una herramienta válida y fiable para medir de manera fácil y rápida la alfabetización en salud en Turquía. (Global Health Promotion, 2021; 29(1): 74–85)

El papel fundamental de la promoción de la salud para una efectiva cobertura universal de salud

Trevor Shilton y Margaret M. Barry

La Declaración política de la reunión de alto nivel de la Organización de las Naciones Unidas sobre la Cobertura universal de salud: avanzando juntos para construir un mundo más saludable (2019) proporcionó una reafirmación importante de la salud como un requisito del desarrollo sostenible y de la equidad, al igual que del papel de la atención primaria como piedra angular de la cobertura universal de salud. La promoción de la salud, la prevención y una atención en salud sostenible van de la mano. La promoción de la salud puede permitir un uso más eficaz de los recursos de salud mediante la reducción de la demanda por servicios de salud costosos y la reducción de admisiones hospitalarias. Promover la salud mental y física y abordar el alfabetismo para la salud y los determinantes sociales de la salud les permite a los gobiernos y a los departamentos de salud (i) empoderar a los ciudadanos y a las comunidades para tomar el control de su salud y (ii) mejorar el apoyo a una atención en salud innovadora y financieramente sostenible. Sin los fundamentos de una promoción de la salud eficaz, los fondos públicos y los sistemas de salud tendrán dificultades para hacer frente a los crecientes costos y a la carga de una mala salud. (Global Health Promotion, 2021; 29(1): 92–95)

Nexos entre la COVID-19 y el estilo de vida: la solución al debate

Sathyanarayanan Doraiswamy, Sohaila Cheema y Ravinder Mamtani

Un reciente debate que atrajo nuestra atención fue el que se originó cuando la enfermedad por el coronavirus 2019 (COVID-19) fue definida como una enfermedad de estilo de vida por el Royal College of General Practitioners (en el nombre de un evento en línea), después de lo cual tuvieron que ofrecer disculpas y retirar la referencia. En este comentario desmitificamos las enfermedades relacionadas con el estilo de vida y lo ponemos en el contexto de la antigua forma de la salud pública de clasificar las enfermedades como transmisibles y no transmisibles (ENT). La evidencia indica que los estilos de vida no saludables, además de causar las ENT también pueden ocasionar una reducción de la inmunidad y/o provocar lesiones a órganos, predisponiendo a las personas a enfermedades – y a su gravedad – tradicionalmente definidas como 'transmisibles', como la COVID-19. La

COVID-19 ha demostrado el nexo entre transmisible y ENT como nunca antes en términos inequívocos. Dos mensajes importantes que han surgido de la pandemia son: (1) hay una proximidad extrema entre las enfermedades transmisibles y las ENT y (2) los estilos de vida relacionados con la higiene personal individual pueden influenciar la ocurrencia, la gravedad y la prevención de enfermedades transmisibles como la COVID-19. (Global Health Promotion, 2021; 29(1): 96–100)

Respuesta comunitaria a la COVID-19 en Toronto

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En este comentario, describimos las lecciones iniciales de un proyecto comunitario de investigación que exploró cómo el espacio relacional entre residentes e instituciones formales en seis comunidades marginalizadas en Toronto, Ontario (Canadá), afectó las respuestas populares a las tensiones de salud y psicosociales que surgieron y fueron amplificadas por la pandemia de la enfermedad por el coronavirus 2019 (COVID-19). Nuestra investigación encontró que los líderes comunitarios locales se unieron para llenar los vacíos dejados por los sistemas formales de salud pública y de manejo de emergencias de Toronto y fueron esenciales para mitigar los impactos psicosociales y socioeconómicos de la pandemia que exacerbaron las inequidades preexistentes y las fallas sistémicas. Sugerimos que desarrollar la resiliencia comunitaria en las comunidades marginalizadas de Toronto puede representar a la promoción de la salud en una acción donde los miembros comunitarios, las organizaciones, las instituciones y el gobierno crean la infraestructura social necesaria para construir sobre activos locales y trabajar juntos para promover la salud mediante el fortalecimiento de la acción comunitaria, la defensa de políticas de salud pública y la creación de entornos favorables. (Global Health Promotion, 2021; 29(1): 101–104)

Labores de *care* de las trabajadoras de la salud en situación de pandemia de la COVID-19: ¿Cuál es el compromiso de las autoridades gubernamentales?

Geneviève McCready, Marie-Ève Lajeunesse-Mousseau, Josée Lapalme y Sandra Harrisson

La COVID-19 ha instado a los gobiernos a intervenir con datos parciales sobre la efectividad de los recursos. Las mujeres se ven afectadas particularmente, pues ellas son, en su mayoría, quienes se encargan de la atención a los demás. El objetivo de este estudio es comprender la influencia de las decisiones políticas en las condiciones de vida y profesionales de las trabajadoras de la salud. Se realizó un análisis de las intervenciones gubernamentales de salud pública de Quebec y de las reivindicaciones de las trabajadoras de la salud publicadas en documentos periodísticos y comunicados de prensa oficiales del gobierno (del 13 de abril al primero de julio del 2020). Los resultados demuestran la falta de reconocimiento de las autoridades frente a ciertos tipos de *care* en salud, así como una insuficiencia de los medios de atención para cuidar a la población. El poco reconocimiento de las condiciones de vida y profesionales en las decisiones políticas genera una distribución desigual de las cargas asociadas a la pandemia. (Global Health Promotion, 2021; 29(1): 110–118)

Efectos de un programa de desarrollo de competencias psicosociales en el ámbito escolar, el PROgrama de Desarrollo Afectivo y Social (PRODAS): revisión de la literatura

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Objetivo: El Programa de Desarrollo Afectivo y Social (PRODAS) es un programa de desarrollo de las competencias psicosociales en niños o adolescentes, realizado en el ámbito escolar por la asociación francesa

Planning Familial desde el 2005. El objetivo de este artículo fue el de sintetizar los conocimientos sobre los efectos de este programa con el fin de contribuir al estudio de su transferibilidad.
Métodos: La revisión bibliográfica se centró en estudios fechados entre 1970 y el 2017. Se analizaron las bases de datos ScienceDirect, PsycNET, ERIC, PsycINFO, erudit, ISIDOR y Cochrane. Las palabras clave utilizadas fueron '*Human Development Program*' o 'PRODAS'.
Resultados: Se reportó una mejoría, con frecuencia significativa, de las competencias emocionales y sociales de niños y adolescentes. Igualmente, ciertos resultados sugirieron una relación de tipo dosis-respuesta. No había muchos datos disponibles en relación con los niños (escuela maternal) ni estudios que exploraran los efectos del programa a largo plazo.
Conclusión: La síntesis permitió destacar los principales impactos del PRODAS. Sin embargo, considerando que este programa es uno de los pocos dirigidos a niños de 4 años en Francia, sería útil implementar futuros estudios relacionados con niños de escuelas maternales, con un seguimiento a largo plazo, a fin de completar los datos sobre la eficacia de dicho programa. (Global Health Promotion, 2021; 29(1): 119–129)

TABADO 2: estrategia de acompañamiento a la abstinencia del cigarrillo en adolescentes en el entorno escolar

Amandine Vallata, Marjorie Cadeville, Charlotte Kanski y François Alla

El consumo de cigarrillo es una de las primeras causas de mortalidad evitable en el mundo. La adicción al cigarrillo se observa desde la adolescencia. Como un complemento a las acciones dirigidas a prevenir la llegada de jóvenes al tabaquismo, es necesario desarrollar estrategias específicas para los adolescentes que ya son fumadores. Un programa de acompañamiento a la abstinencia del cigarrillo en adolescentes, TABADO, demostró su eficacia durante un ensayo controlado realizado en centros de capacitación de aprendices entre el 2007 y el 2009. En el 2018, el Instituto Nacional de Cáncer (Francia) quiso llevar TABADO a todo el país y extenderlo a los liceos profesionales. Para acompañar este proceso, fue importante elaborar la teoría de intervención y analizar la transferibilidad de TABADO en condiciones de la vida real y en nuevos contextos, así como proponer las adaptaciones correspondientes. Además, se realizó una investigación específica y detallada. El objetivo de esta publicación pragmática es el de presentar la nueva estrategia TABADO 2 a los actores y a los responsables de la toma de decisiones en salud pública, así como la guía desarrollada para acompañarlos en su implementación.
Se llevó a cabo un estudio de caso múltiple ($n = 10$) a partir de la aplicación de TABADO en tres regiones francesas, que se basaba en observaciones, entrevistas y seminarios de intercambio de experiencias. Este destacó la adaptación de la intervención a los contextos locales, así como las nuevas palancas de intervención implementadas. Además, las investigaciones mostraron que para instaurar un clima favorable al proceso de dejar de fumar y mantenerlo en el tiempo, fue necesario inscribir TABADO en una estrategia global del establecimiento escolar y de su entorno. Este proceso permitió proponer una transformación de la intervención TABADO en una nueva estrategia, TABADO 2, y proponer una guía para acompañar su desarrollo nacional. (Global Health Promotion, 2021; 29(1): 130–138)