

Volume 11 / Number 02 / February 2020

# Indian Journal of Public Health Research & Development

An International Journal

Website:

www.ijphrd.com

### Indian Journal of Public Health Research & Development

### **EXECUTIVE EDITOR**

### Prof. Vidya Surwade

Deptt. of Community Medicine, Dr Baba Saheb Ambedkar, Medical College & Hospital, Rohini, Delhi

### INTERNATIONAL EDITORIAL ADVISORY BOARD

- Dr. Abdul Rashid Khan B. Md Jagar Din, (Associate Professor)
   Department of Public Health Medicine, Penang Medical College, Penang, Malaysia
- 2. Dr. V Kumar (Consulting Physician)
  Mount View Hospital, Las Vegas, USA
- 3. Basheer A. Al-Sum,

Botany and Microbiology Deptt, College of Science, King Saud University, Rivadh, Saudi Arabia

- Dr. Ch Vijay Kumar (Associate Professor)
   Public Health and Community Medicine, University of Buraimi, Oman
- Dr. VMC Ramaswamy (Senior Lecturer)
   Department of Pathology, International Medical University, Bukit Jalil, Kuala Lumpur
- Kartavya J. Vyas (Clinical Researcher)
   Department of Deployment Health Research,
   Naval Health Research Center, San Diego, CA (USA)
- Prof. PK Pokharel (Community Medicine)
   BP Koirala Institute of Health Sciences, Nepal

### NATIONAL SCIENTIFIC COMMITTEE

- Dr. Anju D Ade (Professor)
   Community Medicine Department, SVIMS, Sri Padamavati Medical College, Tirupati,
   Andhra Pradech
- Dr. E. Venkata Rao (Associate Professor) Community Medicine, Institute of Medical Sciences & SUM Hospital, Bhubaneswar, Orissa.
- Dr. Amit K. Singh (Associate Professor) Community Medicine, VCSG Govt. Medical College, Srinagar – Garhwal, Uttarakhand
- Dr. R G Viveki (Associate Professor) Community Medicine, Belgaum Institute of Medical Sciences, Belgaum, Karnataka
- Dr. Santosh Kumar Mulage (Assistant Professor)
   Anatomy, Raichur Institute of Medical Sciences Raichur(RIMS), Karnataka
- Dr. Gouri Ku. Padhy (Associate Professor) Community and Family Medicine, All India Institute of Medical Sciences, Raipur
- Dr. Ritu Goyal (Associate Professor)
   Anaesthesia, Sarswathi Institute of Medical Sciences, Panchsheel Nagar
- Dr. Anand Kalaskar (Associate Professor)
   Microbiology, Prathima Institute of Medical Sciences, AP
- Dr. Md. Amirul Hassan (Associate Professor)
   Community Medicine, Government Medical College, Ambedkar Nagar, UP
- 10. Dr. N. Girish (Associate Professor) Microbiology, VIMS&RC, Bangalore
- 11. Dr. BR Hungund (Associate Professor) Pathology, JNMC, Belgaum.
- 12. Dr Sartaj Ahmad, PhD Medical Sociology, Associate Professor, Swami Vivekananda Subharti University Meerut UP India
- Dr Sumeeta Soni (Associate Professor)
   Microbiology Department, B.J. Medical College, Ahmedabad, Gujarat, India

### NATIONAL EDITORIAL ADVISORY BOARD

- Prof. Sushanta Kumar Mishra (Community Medicine) GSL Medical College – Rajahmundry, Karnataka
- Prof. D.K. Srivastava (Medical Biochemistry)
   Jamia Hamdard Medical College, New Delhi
- Prof. M Sriharibabu (General Medicine) GSL Medical College, Rajahmundry, Andhra Pradesh
- 4. Prof. Pankaj Datta (Principal & Prosthodentist) Indraprastha Dental College, Ghaziabad

### NATIONAL EDITORIAL ADVISORY BOARD

- Prof. Samarendra Mahapatro (Pediatrician)
   Hi-Tech Medical College, Bhubaneswar, Orissa
- Dr. Abhiruchi Galhotra (Additional Professor) Community and Family Medicine, All India Institute of Medical Sciences, Raipur
- Prof. Deepti Pruthvi (Pathologist) SS Institute of Medical Sciences & Research Center. Davangere. Karnataka
- 8. Prof. G S Meena (Director Professor)
  Maulana Azad Medical College, New Delhi
- Prof. Pradeep Khanna (Community Medicine)
   Post Graduate Institute of Medical Sciences, Rohtak, Haryana
- Dr. Sunil Mehra (Paediatrician & Executive Director)
   MAMTA Health Institute of Mother & Child. New Delhi
- Dr Shailendra Handu, Associate Professor, Phrma, DM (Pharma, PGI Chandigarh)
- Dr. A.C. Dhariwal: Directorate of National Vector Borne Disease Control Programme, Dte. DGHS, Ministry of Health Services, Govt. of India, Delhi

**Print-ISSN**: 0976-0245-Electronic-ISSN: 0976-5506, Frequency: Quarterly (Four issues per volume)

Indian Journal of Public Health Research & Development is a double blind peer reviewed international journal. It deals with all aspects of Public Health including Community Medicine, Public Health, Epidemiology, Occupational Health, Environmental Hazards, Clinical Research, and Public Health Laws and covers all medical specialties concerned with research and development for the masses. The journal strongly encourages reports of research carried out within Indian continent and South East Asia.

The journal has been assigned International Standards Serial Number (ISSN) and is indexed with Index Copernicus (Poland). It is also brought to notice that the journal is being covered by many international databases. The journal is covered by EBSCO (USA), Embase, EMCare & Scopus database. The journal is now part of DST, CSIR, and UGC consortia.

### Website: www.ijphrd.com

©All right reserved. The views and opinions expressed are of the authors and not of the Indian Journal of Public Health Research & Development. The journal does not guarantee directly or indirectly the quality or efcacy of any product or service featured in the advertisement in the journal, which are purely commercial.

#### Editor

Dr. R.K. Sharma

Institute of Medico-legal Publications Logix Office Tower, Unit No. 1704, Logix City Centre Mall, Sector- 32, Noida - 201 301 (Uttar Pradesh)

### Printed, published and owned by

Dr. R.K. Sharma

Institute of Medico-legal Publications Logix Office Tower, Unit No. 1704, Logix City Centre Mall, Sector- 32, Noida - 201 301 (Uttar Pradesh)

#### Published at

### Institute of Medico-legal Publications

Logix Office Tower, Unit No. 1704, Logix City Centre Mall, Sector- 32, Noida - 201 301 (Uttar Pradesh)



# Indian Journal of Public Health Research & Development

www.ijphrd.com

Contonta	
Contents	

Volume 11, February 02

February 2020

## **Contents**

1.	Stress in Families of Children with Disabilities	1
	Sheila Christopher, L. Cresenta Shakila, R. Leema Suganya, Angel Selvaraj	
2.	Physical Activity Measurement Using Accelerometer in Phase-I Cardiac Rehabilitation	6
3.	A Study to Assess the Effect of Childbirth Education on Intrapartum Coping behaviours of Primiparous Women in a Selected Maternity Center of a Tertiary Level Hospital in Pune	11
4.	Physicochemical Characteristics, Heavy Metal Analysis and Antioxidant Potential of Jamun Honey (Syzygium Cumini L.) from Western Ghats, India	17
5.	Short Term Effect of Isolytic Contraction on Hamstring Flexibility in Asymptomatic Subjects with Hamstring Tightness: A Randomised Controlled Trial	23
6.	Analysis and Comparison of Salivary L-Fucose and HSP 70 in Oral Potentially Malignant Disorders and Oral Cancer	29
	Supriya Bhat, Gogineni Subhas Babu, Suchetha Kumari N., K. Saidath, Medhini Madi, Sajad Buch, Harshini Ullal	
7.	Knowledge Attitude and Practices of Biomedical Waste Management among Dental Practioners in Karad City Maharashtra, India	34
8.	Gynaecological Manifestations of Systemic Malignancies	40
9.	A Study to Assess the Effectiveness of Structured Teaching Programme on Knowledge Regarding Substance Abuse and its Impact on Health among Higher Secondary Students among Atulya Healthcare Pune	44
	Tejashri Ligade, Sagar Kulkarni, Aejaz Ahmad	

11 10.	Selective Proprioceptive Neuromuscular Facilitation on Pelvic Mal-Alignment in Acute Post-Stroke Hemiparesis: A Case Report  Thangarasa Ponvel, Sukumar Shanmugam	48
11.	Original Article Effect of Scapular Position: Motion Maintenance Exercise Programme During Post Traumatic Shoulder Immobilization	52
12.	Hand Hygiene Practices and Training Gap in a Neonatal Intensive Care Unit at Coastal Karnataka India Usha Rani, Kiran Chawla, Leslie E. Lewis, Indira Bairy, Vasudeva Guddattu, Jayashree Purkayastha, Christy Thomas Varghese	59
13.	A Study to Assess the Effectiveness of Protocol on Care of Newborn in Phototherapy on Knowledge and Practice among Nurses at Selected Hospitals in South India	64
14.	Health Coverage Across the Globe: A Contemporary Scenario	70
15.	Unmet Need of Objective Monitor to Evaluate Performance Status in Lung Cancer Patients	75
16.	Treatment Seeking Behaviour among TB Patients Registered Under RNTCP in District Bareilly	79
17.	Invitro Evaluation of Shear Bond Strength of Orthodontic Brackets Cemented to Natural Teeth Treated with Various Soft Drinks	84
18.	Understanding the Basics of Research as a Beginner: A Highlighter	89
19.	Food Insecurity Standard of Living and Nutritional Status of People Living with HIV/AIDS (PLHAs) on ART: Rural–Urban Differences	94
20.	Reading Skill of Deaf Students from Ludhiana Punjab	101
21.	A Twin Inside a Twin/Fetus-in- Fetu-Review Article	105
22.	Effect of Jacobson's Progressive Relaxation Technique Over Sleep Disturbances and Quality of Life in Chronic Rheumatoid Arthritis	108
23.	Comparison of Therapeutic Ultrasound and Low Level Laser Therapy Over Pain and Scar Health in Post Episiotomy	113

24.	The Effect of Specific Training on Selected Physiological Variable among Kabaddi Players	<b>III</b> 119
25.	Urinary Intestinal Fatty Acid Binding Protein "IFABP" as a Marker for Gut Maturation in Preterm Babies	122
26.	Relationship Individual Factors with Sickness Absence in Hospital	127
27.	Climate Variability and Dengue Hemorrhagic Fever in Surabaya, East Java, Indonesia	131
28.	Associations Between TNF-α and Interleukin-18 and ADIPOQ Gene Polymorphisms in Iraqi Obese Women Patients with Polycystic Ovary Syndrome	138
29.	The Effect of Ladder Training on Selected Physical Variable among College Men Football Players  R. Saravana Kumar, N.C. Jesus Raj Kumar	144
30.	C2 Lateral Mass Vertebrae Anthropometry for Evaluating C2 Straight Lateral Mass Screw Fixation Sarrah Dwiananda Mayasafira, Joni Susanto, Eko Agus Subagio	148
31.	Preferred Learning Method of Undergraduate Medical Students	153
32.	Effect of Smoking & Alcohol on Hypertension in Various Professionals a: Cross Sectional Study	159
33.	Credibility of Health Care Advertising: An Empirical Understanding of its Multi-dimensional Structure and Scale Validation with Special Reference to Children's Health Food Drinks	163
34.	Service Quality Perceptions to Wards Health Insurance Products	169
35.	Unwed Mother: A Socio-Legal Study	175
36.	Association of Epicardial Adipose Tissue Thickness with Resting and Post: Exercise Cardiac Output in Overweight and Obese Individuals	180
37.	Factors Affecting Risk of Cardiov Ascular Diseases among Hotel Employees in Udupi District, Karnataka  Thirugnanasambantham K, Lalitha Ramaswamy	186
38.	Comparative Evaluation of Depth of Cure of Bulk: Fill Composite Resin and Alkasite Restorative Material by Vicker's Hardness Test	191

IV	Harlth Localizations on Community of Frank to Late Frank	100
39.	Health Implications on Consumption of Food at Fast Food Outlets in Chennai	196
40.	Study to Evaluate Prevalence, Knowledge and Awareness of Needle Stick Injury among Dental and Nursing: Under Graduate Students	201
41.	Effect of Mental Imagery Technique on Balance in Postmenopausal Women with Postural Disturbance:  A Randomized Controlled Trial  Hulsha Paudyal, Suchetha P. S., Dhanesh Kumar K.U.	206
42.	An Observational Study on Factors Associated with Pre-Eclampsia/Gestational Hypertension among Pregnant Women Attending a Tertiary Care Hospital at Udupi	212
43.	The Effect of Specific Training on Selected Physical Variable among Kabaddi Players	218
44.	Effect of Selected Yogic Practices on Aerobic Capacity and Anaerobic Power of School Girls	221
45.	Effectiveness of Low Level Laser Therapy Versus Ultrasound Therapy with Plantar Fascia Streching in Subjects with Plantar Fasciitis	225
46.	Effect of Expiratory Training and Inspiratory Training with Lumbar Stabilization in Low Back Pain:  A Randomized Controlled Trial	230
47.	Influence of Self-Efficacy on Student Engagement of Senior Secondary School Students	236
48.	Ruptured Bicornuate Uterus Mimicking Ectopic Pregnancy: A Case Report	242
49.	Patient Satisfaction in a Dental Hospital with Respect to Clinician Expertise	246
50.	Psychological Effects of Trauma to Anterior Teeth	251
51.	Physical Characteristics and Somato Type of Trained Badminton Players	257
52.	Health Care Services Under Consumer Protection Laws of Union Territories of Jammu and Kashmir:  A Socio-Legal Mapping	261
53.	Platelet Rich Fibrin (PRF): Revolutionary Boon to Dentistry	267

54.	Compliance of the Cigarettes and Other Tobacco Products Act (Cotpa) 2003: A Baseline Survey in Vijayapura District of North Karnataka	272
55.	One Year Clinical Evaluation of Different Bulk Fill Restorative Resins in Class-I Restorations	277
56.	Lower Extremity Perfusion among Patient with Type 2 Diabetes Mellitusin a Tertiary Care Hospital, Kochi	283
57.	Child Abuse: An Empirical Study Emphasizing on Child Health in Present Indian Socio-Economic Situation	289
58.	A Glimpse of Manual Scavanging in India	294
59.	Knowledge of Primary School Teachers Regarding Learning Disorders among Children at Schools of Satara District	298
60.	Efficacy of Cognitive Behaviour Therapy and SSRI in Treatment of Conversion Disorder	302
61.	In Vitro Study of Constitutive and Inducible Clindamycin Resistance in Staphylococcus Aureus with Reference to Methicillin Resistant Staphylococcus Aureus: Experience From Tertiary Care Hospital in Punjab	308
62.	A Study of Gender Based Knowledge Level on Risk and Cause of Obesity among Management Students of Urban, Rural, Semi Urban Areas of East Midnapore District	312
63.	Prevalence of Dengu Fever in India along with its Prevention and Treatment By Herbal Medicine	317
64.	Influence of Cardiorespiratory Fitness Protocol on Physical Function Performance in Geriatric Patients Undergoing Long Term Physiotherapy Treatment	322
65.	Efficacy of Tele-Rehabilitation for the Management of Physical Impairments of the Children with Cerebral Palsy in the Inclusive Educational Settings: A Protocol for a Systematic Review	328
66.	Emotional Flanker Compatibility in Patients with Non-Demented Parkinson's Disease and Healthy Ageing	333

VI		
67.	Treatment Success Rate among Multidrug Resistant Tuberculosis Patients Registered Under Programmatic Management of Drug Resistant Tuberculosis Services in District Amritsar, Punjab, India Pooja Sadana, Vishal Verma, Priyanka Devgun	a339
68.	Denture Identification Method: A Review	344
69.	Repair of Cast Partial Denture Made Easy: An Alternative Approach	347
70.	Indigenous Healing Practices and Beneficiaries' Perception	350
71.	Effectiveness of Distraction Versus Cutaneous Stimulation on Venipuncture Pain Response among Children  Prini Varghese, Ahalya V, Aiswarya Kuriakose	356
72.	A Study on Customer Attitude and Shopping Intention Towards Health Care Products	362
73.	Oral Health Literacy and its Relationship with Level of Education and Self: Efficacy among Patients Attending a Dental Rural Outreach Clinic in India  Shatakshi Srivastava, Shashidhar Acharya, Deepak Kumar Singhal, Abhishek Dutta, Kush Kalra, Nishu Singla	367
74.	Perception and Prevalence of Substance Use among Undergraduate Medical Students in Mumbai  Priyanka Manghani , Nishtha Khatri , Ashish Vasava, Veena Mulgaonkar	373
75.	An Assessment of Trust in Medical Profession amongst People Residing in a Semi: Urban Area, Tamil Nadu	381
76.	Li-Fi Based Automated Patient Healthcare Monitoring System  B.Srimathi, T. Ananthkumar	387
77.	A Low Cost Hardware Based Fall Detection and Call for Help System for Elderly Person	393
78.	Real Time Dengue Prediction Using Machine Learning	400
79.	An Survey on Breast Cancer in Machine Learning	407
80.	Health of the Elderly in India: A Socio-Legal Study	411
81.	Effectiveness of Rhythmic Chopping & Lifting Pattern on Shoulder Range of Motion and Upper Extremity Functional Index in Post: Mastectomy Patients	416

		VII
82.	Current Research in Neuropathology and Pharmacotherapy of Alzheimer's Disease: A Review	421
83.	Prevalence of Thalassemia among Reproductive Age Group Women of Central Gujarat	427
84.	Prevalence and Risk Factors of Obesity among Women	431
85.	Assess the Knowledge and Risk Factors among Pregnancy Induced Hypertension among Antenatal Mothers  **Assess the Knowledge and Risk Factors among Pregnancy Induced Hypertension among Antenatal Mothers **  **Assess the Knowledge and Risk Factors among Pregnancy Induced Hypertension among Antenatal Mothers **  **Assess the Knowledge and Risk Factors among Pregnancy Induced Hypertension among Antenatal Mothers **  **Assess the Knowledge and Risk Factors among Pregnancy Induced Hypertension among Antenatal Mothers **  **Assess the Knowledge and Risk Factors among Pregnancy Induced Hypertension among Antenatal Mothers **  **Assess the Knowledge and Risk Factors among Pregnancy Induced Hypertension among Antenatal Mothers **  **Assess the Knowledge and Risk Factors among Pregnancy Induced Hypertension among Antenatal Mothers **  **Assess the Knowledge Antenatal Risk Factors among Pregnancy Induced Hypertension Induced Hypertensi	437
86.	Improvement of Diabetic Patients' Knowledge Regarding Foot Problems: An Intervention Study	441
87.	The Empowerment among Type 2 Diabetes Mellitus Patients	449
88.	Assessments of Pre: Competetitive Psychological Variables Between South Zone Volleyball Players and Baskertball Male Players	453
89.	A Study to Find the Prevalence of Breast Engorgement among Lactating Mothers  D. Indrani, M.V. Sowmya	456
90.	Depression & Diabetes Has No Relation: A Cross Sectional Study in Tertiary Care Hospital of Eastern India  Datta Subhendu, Chattopadhyay Somsubhra, Gayen Rumi, Debnath Sharmistha	460
91.	Prevalence of Psychiatric Morbidities in Migraine: An Observational Study	465
92.	Economic Slow Down and it's Impact on Disease Burden in India  Divya A Reddy, Siddharth Misra, Subin Koshy, Sudhakar A	469
93.	Effect of Self Myofascial Release Using Foam Roller Versus Tennis Ball in Subjects with Plantar Fasciitis: A Comparative Study	474
94.	A Study on the Impact of Demonetization on Utilisation of Private Health Care Services in a South Indian City	479
95.	Impact of Learning Opportunities in Preparing Dental Students for Their Profession	485
96.	Home Remedies and Health Care Seeking Behavior among Care Takers of Under-5 Children in Rural Field Practice area of a Medical College: Focus Group Discussion	490

Cheluve Gowda G.K., Savitha Rani B.B., Krishna Iyengar, Venkatesh P.

•	
•	
•	111

97.	Breast Cancer Screening: Are 'At Risk Population' Known by Public Health Nurse Practitioners? <i>G.M. Venkatesh, M. Sundar</i>	495
98.	Efficacy and Feasibility of Proprioceptive Neuromuscular Facilitation on Hand Opening in Stroke Individuals: A Case Series	500
99.	Knowledge and Perception Regarding Menopause among Married Women	505
100.	Prosthetic Status and Demand for Services in an Adult Rural Population in Relation to Dental Service Infrastructure in Mangalore Taluk, South India	511
101.	Evaluation of Intrusive Forces Created by 'V' Bend, Intrusion Arches at Various Deflections: An Invitro Study	517
102.	Autistic Spectrum Disorder- Contextual Paediatric Global Updates	521
103.	Effectiveness of a Comprehensive Nurse-Patient Strategy in Care of Patients with PIVC and its Clinical Outcomes	526
104.	Healthcare Rights of the Mentally III: Awareness among Healthcare Providers	532
105.	Added Effect of Deep Breathing and Diaphragmatic Breathing Exercise in Upper Abdominal Surgery Patients: A Randomised Clinical Trial	538
106.	A Review Study on Pharmaceutical Inventory Management & Store Keeping Practices of Pharmacy in Rural Hospitals	544
107.	The Effect of Circuit Training and Weight Training on Selected Physiological Variables and Running Performances among University Athletes	549
108.	The Assessment of Suppression in Anisometropia	552
109.	Proficiency, Perspective and Practice Regarding Plagiarism among Dental Professionals of Three Dental Colleges of Western Chhattisgarh: A Cross Sectional Study	555
110.	Palateless Complete Denture: A Minimally Invasive Approach to Preventive Case	561

111.	Effectiveness of Pelvic Proprioceptive Neuromuscular Facilitation on Trunk Control in Children with Spastic Diplegia: A Randomized Controlled Trial	565
112.	A Quasi Experimental Study to Evaluate the Effectiveness of Revised Nursing Care Standard Operative Procedures on Knowledge & Practice Regarding Infant Feeding among Students of Selected Nursing College, Vadodara	571
113.	Knowledge, Attitude and Practice of Biomedical Waste Management in Nursing Staff of a Private and a Government Tertiary Care Teaching Hospital: A Comparative Study	576
114.	A Study to Find Out Strongest Predictive Factor for Functional Outcome After Stroke: An Exploratory Study	582
115.	Impact of Demographic Factors on the Ethical Conduct of Physicians in India	588
116.	Issues in India's Healthcare System	594
117.	A Pre-experimental Study to Assess the Effect of Planned Teaching Programme on Knowledge of Staff Nurses Regarding Hemodialysis in Selected Hospitals at Jaipur	600
118.	A Study on Consumers' Satisfaction Level towards Select Organic Food Products in Salem District of Tamil Nadu	604
119.	An Empirical Relationship between Stress and Time Management of School Students	608
120.	Prevalence of Anemia among Higher Primary School Girls in Selected Urban and Rural Schools  Dayanand V. Belagavi, Manju John	612
121.	Relative Effect of Conventional and Specific Hockey Skill Training on Selected Motor Fitness, Physiological Variables and Playing Ability of Hockey Players in Tamil Nadu	618
122.	Effect of Yoga on Body Composition in Person with Visual Disabilities	624
123.	Uncorrected Refractive Error as a Cause of Headache: A Cross Sectional Study	630
124.	Tuberculosis Knowledge: A Survey among Students of a Medical College from Coastal Karnataka, Ind Natasha Aquinas, Vaman Kulkarni, Ashwini Hegde, Radhakrishna M.	a 637

<b>X</b> 125.	Reviving the Lost Extremity: A Case Report	642
	Nitika Gupta, Jeewan Bachan Dhinsa, Urvashi Sukhija, Sanjeev Mittal	
126.	Research Trends in Dermatologist Level Automatic Classification of Various Skin Lesions using  Deep Learning  B. Kapathana B. Sing Panigni, G. Sang Canadhai Davi S. Shanganganaing, G. H. Singhair.	646
	P. Keerthana, P. SivaRanjani, G. Sree Gayathri Devi, S. Shanmugapriya, G.H. Sindhuja	
127.	Epidemiology of Osteoporosis: A Case-Control Study among the Pre and Post Menopausal women of Allahabad District	652
128.	Work Life Balance of Hotel Employees: An Empirical Study	660
129.	Perceptions of Nurses Regarding Barriers to Implement Maternal and Newborn Care at Rural Community Health Centers of Madhya Pradesh, India: A Phenomenology Study	665
130.	Morphological Study of Neurons in the Trigeminal Ganglion  T. Jeevapriya, R. Archana, Gunapriya Raghunath, P.K. Sankaran	671
131.	Determinants Influencing Towards the Consumption of Green Products among the Consumers: A Structural Equation Approach  Vijaya Kumar, Shanthini, Nishad Nawaz	674
132.	Effect of Methanolic Leaf Extract of Ficus Religiosa on Neuronal Degeneration: A Pilot Study in Male Albino Wistar Rats	679
	Amit Massand, Rajalakshmi Rai, Ashwin R. Rai, Teresa Joy, B.V. Murlimanju, Aradhana Marathe	
133.	Abdominal Muscular Strength Endurance: Normative Reference Values for Children 11 to 15 Years of Age	686
	Nayana Nimkar, T.K. Bera, Amritashish Bagchi, Ravi Narnolia	
134.	Functional and Aesthetic Rehabilitation of Missing Tooth by Using Immediate Implant Placement: A Case Series	692
135.	Assessment of Physical Activity and Sedentary behaviour among Overweight Adolescents in Selected Urban Schools of Puducherry	697
136.	Effect of Activation of Deep Neck Muscles as an Adjunct to Vestibular Rehabilitation in Vertigo	702
137.	Life Beyond the Diagnosis of Breast Cancer: A Qualitative Study on the Lived Experiences of Breast Cancer Survivors	708
138.	Binsha Pappachan C., Fatima D'Silva, Safeekh A.T.  Virtual Prominance of Prognosticator Variable in Discriminating Cost Gears. A Pragmatic Analysis in Select Pharma Companies  F.J. Peter Kumar, C. Samuel Joseph, S. Paul Jefferson Clarence	713

139.	Effect of Interdental Brushing as Modality of Plaque Reduction in Ongoing Fixed Orthodontic Patients: A Randomised Clinical Trial Study	720
140.	Epidemiological Profile of Trauma Victims Attending a Tertiary Care Hospital in Delhi and Application of Haddon Matrix to Identify Risk Factors of Road Traffic Accidents	723
141.	Pattern of Utilization in Primary Health-Care Facility: A Case Study in Nagaon District	729
142.	Measuring Adequacy and Optimization of Antenatal Quality of Care and Client Satisfaction During Pregnancy: A Cross Sectional Study of Two Aspirational Districts of Jammu & Kashmir	733
143.	Administration of Magnesium Sulphate Prior to Vecuronium: Effects on the Speed of Onset and Duration of Neuromuscular Block	740
144.	Assessment of Teaching Ability among University Level Health Science Teachers: Pilot Study	745
145.	A Critical Study of Women's Health in India from a Socio-Cultural and Gender Perspective	748
146.	Actions of Riluzole on Glast and GLT <sub>1</sub> Transporters in Rat Migraine Model	752
147.	Factors Affecting Child Development: Highlighting the Facts in the Perspective of Child Abuse in Indian Scenario  Arunangshu Giri, Satakshi Chatterjee, Pradip Paul, Manigrib Bag, Abanti Aich, Swatee Biswas	756
148.	Use of Throat Swab as a Method of Sputum Induction in Suspected Cases of Tuberculosis	761
149.	mLearning Using Whattsapp Application to Interconnect the Class	765
150.	Mobile Phones of Nursing Staff: A Neglected Source of Cross Infection	768
151.	Comparative Study to Evaluate the Outcome of Sutures Versus Sutureless in Attachment of Conjunctival Autograft for Pterygium Excision	773
152.	Reported Adverse Drug Reactions in Off–Label Use of Azathioprine in Dermatology: A Review  Gunjeet Singh, Dr ShashankShekhar Gautam, Dr Anshu Gupta, Dr Pankaj Saini	779

<b>XII</b> 153.	Evaluation of Technique Using Pressurized Metered dose Inhaler and its Determinants among COPD Patients: A Cross Sectional Study	784
	Achchhar Singh, Jai Kishan, Sameer Singhal, Vishvdeep Saini, Abhishek Chauhan	
154.	Glue Free and Suture Free Conjunctival Autograft in Pterygium Excision: A North Indian Perspective Vineet Gupta, Kunal Sharma, Neha	788
155.	$ \label{eq:continuous}                                   $	792
156.	Use of Custom-Made Antibiotic Coated Intra-Medullary Nail in Treatment of Infected Non-Union of Long Bones  Vineet Pruthi, Ashwani Ummat, Manjeet Singh, Sonia Kochhar, Subodh Pathak, Vishesh Verma, Aryan Sharma	796
157.	Role of Tranexamic Acid in Controlling Blood Loss in Major Orthopaedic Surgeries (TRAMOS): A Comparative Study  Manjeet Singh, Ashwani Ummat, Vishesh Verma, Praveen Thivari, Harsimarjit Kaur	802
158.	Repair of Chronic Achilles Tendon Rupture by Modified Bosworth Technique	
159.	Comparative Evaluation of Conventional Media with Bactec MGIT 960 for Detection of Mycobacterium Tuberculosis in Clinically Suspected Cases of Pulomonary and Extra-Pulmonary Tuberculosis	812
	Harit Kumar, Varsha A. Singh, Sonia Mehta, Shavi Nagpal, Rosy Bala, Dipankar Biswas	
160.	Nontuberculous Mycobacterium in Pulmonary & Extrapulmonary Tuberculosis: Stilla Neglected & Underdiagnosed Pathogen in Developing Countries	817
	Pankaj Saini, Varsha A. Singh, Kunal Sharma, Gunjeet Singh, Abhishek Chauhan, Shailja Sharma	
161.	Clinical Evaluation of Pyuria, Bacteriuria and Culture for Diagnosis of Urinary Tract Infection	822
162.	Detection and Enumeration of Parasitic Infections in Stool Samples from Tertiary Care Hospital of Rural Setting  Nitasha Kumari, Ritu Garg, Varsha A. Singh, Ashma Khatun	828
163.	Evolution Proof-Antibiotics: A Hopeful Future to Combat Antibiotics Resistance	833
164.	Violence Against Doctors: Earlier Demigods; Now Culprits?	836
165.	Microbiological Profile of Diabetic Wound Infection	840
166.	Correlation between Bio-Film Formation and Carbapenem Resistant Enterobacteriaceae Isolates Obtained from Various Clinical Specimens  Sakshi Dalal, Sonia Mehta, Shinu Pottathil, Varsha A. Singh, Shavi Nagpal	847

167.	Role of DLCO in Differentiation or Subtyping of Obstructive Lung Disease Beyond Spirometry and CT Scan	XIII 854
	Vishvdeep Saini, Sameer Singhal, Sukhjinder Pal Singh, Achchhar Singh, Aditi Gupta	
168.	Time Lag in Reporting of CBNAAT Under RNTCP in Rural Tertiary Health Care Centre	857
169.	To Study the Prevalence of Obstructive Airway Disease in Patients of OSA Diagnosed by Polysomnography	862
170.	Correlation of Chest Radiography with Microbiological Findings for the Diagnosis of Pulmonary Tuberculosis	867
171.	Perception of Students Regarding Small Group Teaching in Microbiology at Undergraduate Level  Ritu Garg, Rosy Bala, Varsha A. Singh	872
172.	Proximal Fibular Osteotomy—A Novel Technique for Decompression of Isolated Medial Compartment Osteoarthritis Knee  Vishesh Verma, Manjeet Singh, Ashwani Ummat, Praveen Thivari, Harsimarjit Kaur, Jasneet Chawla, Vineet Pruthi	877
173.	Effectiveness of Calf Stretching Exercises Versus Plantar Fascia Stretching Exercises in Plantar Fasciitis: An Experimental Study	884
174.	Efficacy of Early Decompression Surgery Versus Epidural Injection in Management of Sciatica Due to Lumbar Disc Herniation—A Randomised Control Trial	890
175.	A Prospective Study to Compare the Perioperative Oral Duloxetine and Gabapentin for Postoperative Quality of Recovery in Female Patients Undergoing Lower Abdominal Gynecological Surgeries	895
176.	A Comparative Study of the Proseal Laryngeal Mask Airway (PLMA) Insertion by Three Different Technique I.E. Introducer, Digital and Stylet	901
177.	Study of Drug Utilisation and Prescribing Pattern in the Department of Dermatology	907
178.	Fibromyalgia: Latest Drugs for the Treatment  Shashank Shekhar Gautam, Gunjeet Singh	913
179.	A Study on Delay in Giving the Early Morning Sample and Barriers in Accessing Sputum Smear Microscopy Services at Tertiary Care Hospital	916
180.	An Unusual Presentation of Achalasia Cardia: Mediastinal Widening	922

XIV 181.	Determine the Various Risk Factors and Co-Morbidities in the Patient's Admitted with Acute Exacerbation of Chronic Obstructive Pulmonary Disease: A Cross Sectional Study	926
182.	Outcome of Trabeculectomy in Early Primary Open Angle Glaucoma in Respect of Retinal Nerve Fiber Layer Thickness and Optic Nerve Head Parameters	930
183.	Axenfeld-Rieger Syndrome—A Rare Phenomenon	935
184.	Study of Correlation of Hyperuricemia with Knee Osteoarthritis	
185.	How Efficacious is Esmolol in Suppressing the Stress Response to Laryngoscopy and Intubation in ENT Surgeries	944
186.	A Prospective Observational Study Comparing Three Different Techniques of Intubation Using C-Mac Video Laryngoscope	949
187.	Evaluation of Ambu Aura Gain and Plma in Short Surgical Procedures: A Prospective Randomised Study	954
188.	Association between CO in Blood and Lung Physique of Toll Road Officers	960
189.	Assess the Genetic Variant's Linkage with T2DM in Several Pathways of Pathophysiology of Type-2 Diabetes Mellitus	965
190.	Aerodigestive Tract of Foreign Body in 12 Indonesian Academic Hospital	971
191.	The Relationship between the Cochlear Roughness, the Stimulus Level 30dB and the Otoacoustic Emissions	977
192.	Circuit Training to Increase Cardiorespiratory Endurance in Male Basketball Players	983
193.	Relationship between Self-Care for Fluid Limitation and Interdialytic Weight Gain among Patients with Hemodialysis at Ratu Zalecha Hospital, Martapura	989

Agus Rachmadi, Ita Ratnasari, Nursalam<sup>(CA)</sup>, Arief Wibowo

194. Relation between Human Epididymis Protein 4 and Endometrial Pathology in Women with

Ahmed L Aboul Nasr MD, Ghada A AbdelMoety MD, Mostafa S. Salem MD, Marwa M Elsharkawy

Postmenopausal Bleeding 994

	MD, Nada Kamal MD Ahmed M Maged MD	XV
195.	Impact of Cervical Infection with Bacteria Ureaplasma Urealyticum to Interleukin-1α-Expression in Pregnant Women	1000
196.	Short Clinical Outcome of Microscope Assisted Discectomy	1006
197.	Hyaluronidase Versus Magnesium Sulphate as Adjuvants to Bupivacaine in Ultrasound Guided Supraclavicular Brachial Plexus Block in Upper Limb Surgeries	1012
198.	Assessment of Asthma Symptoms and Relationship to Obesity among High School Students in Fallujah City, Iraq	1019
199.	Findings of Cranial Magnetic Resonance Imaging in Neonatal Seizure	1024
200.	Ethyl Acetate Fraction of Papua's Ant Nest Plant (Myrmecodia Pendens) Induces Cell Cycle Arrest and Apoptosis of an Oral Malignant Burkitt Lymphoma Cell through Down Regulation of Cyclin E–CDK2 Complex	1028
201.	Space-Time Analysis for Dengue Surveillance: A Case Study in Sleman, Yogyakarta, Indonesia	1034
202.	Influence of Social Cultural Capital and Marketing on Skin Whitening Products Use among Higher Education Female Students in the Northeast of Thailand	1039
203.	Knowledge Management Based Performance Improvement on Certified Health Workers in Health Center of South Sulawesi  Andi Mansur Sulolipu, Ridwan Amiruddin, Sukri Palutturi, Ridwan M. Thaha, Arsunan A.A.	1045
204.	Hearing Impairment among Primary School Children in Nasiriya City/Iraq During 2018	
205.	In Silico Comparative Studies on Cytokine Receptor "Interleukin-11 Receptor" of Human, Rat and Mouse	1055
206.	Psychosocial Characteristics of Human Trafficking: A Systematic Review	1061
207.	Risk Factors for Obesity in Patients with Hypertension	1066

208. HIV and Zonke-bonke Syndrome in Mthatha Region of South Africa: Case Reports .......1072

B. Meel

XVI 209.	Performance of Midwives with Self Management as a Mediator from the Influence of Individual Factors	.1077
210.	Bringiwatty Batbual, Fendy Suhariadi, Nyoman Anita Damayanti; Dra. Linda Augustien Makalew  Health Literacy on Weighing Control and Use of Weight Loss Products among Working-age Women in the Northeast of Thailand	.1082
211.	Chalee Yaworn, Wongsa Laohasiriwong, Kittipong Sornlorm  Oko Mama Culture Betel Nut Consuming Habit in Kupang District and its Effect toward Salivary Ph and Flow Rate  Christina Ngadilah, Hari Basuki N., Rika Subarniati T.	.1087
212.	Ethanol Extract with Black Cumin (Nigella Sativa) Against sFlt-1 Level and VEGF Serum on Laboratory Mice with Preeclampsia  Deasy Irawati, Hidayat Suyuti, Titi Maharrani, Fitriah, Ani Media Harrumi, Suryaningsih, Nursalam	.1092
213.	Biochemical Studies of Oxidative Stress During Ischemia Induce Myocardial Injuries  Deine Majeed Qadir, Mohsin Omar Mohammed, Mustafa Taha Mohammed	.1098
214.	Cell free DNA in Maternal Blood as an Indicator of Fetal Complications	.1104
215.	Modified Early Warning Score Performance in Predicting the Outcome of Head Trauma Patients in Emergency Department	.1110
216.	Contraception Counseling to Reduce Postpartum Unmet Needs: A Qualitative Study at Samarinda, Indonesia	.1116
217.	Outbreak of Diarrhea in Pondok Duta Elementary School, Depok, 2018	.1121
218.	The Effect of Metabolic Syndrome on Systolic Function of Left Ventricle Using Echocardiographic Examination  Doaa H. EL-Farook, Hatem A. Sarhan, Manal M. Mohamed, Ahmed EL-Barbary, Khaled A. Khaled	.1128
219.	A Comparative Study of Vitamin D Levels and Some Biochemical Parameters between Healthy and Breast Cancer in Iraqi Females	.1134
220.	The Role of Mean Arterial Pressure (MAP), Roll Over Test (ROT), and Body mass Index (BMI) in Preeclampsia Screening in Indonesia	.1141
221.	The Effectiveness of the Cordial Older Family Nursing Model in Order to Improve the Quality of Family Care for Older Persons	

222.	Early-Onset Neonatal Sepsis in Low-Birth-Weight and Birth-Asphyxia Infants at Haji Hospital Surabaya, Indonesia	<b>XVII</b> 1151
	Euvanggelia Dwilda Ferdinandus, Berliana Devianti Putri	
223.	Comparative Study between Elastic Nail Versus Plates and Screws in the Treatment of Diaphyseal Both Bone Forearm Fracture in Children	1156
224.	Humanoid Robot Integration in Rehabilitation of Musculoskeletal Conditions	1161
225.	Validity of the Fast Scan for Diagnosis of Intra-Abdominal Injury in Blunt Abdominal Trauma	1167
226.	Association of Serum Levels of Vitamin D and Interleukin 6 in Type 1 Diabetes in an Egyptian Population	1174
227.	Cost Reduction Using the Time Driven Activity-Based Costing Method for Chemotherapy Treatment Costs for Breast Cancer Patients in the Era of National Health Insurance (JKN) at Airlangga University Hospital	1180
	Diana Suteja, Djoko Agus Purwanto, Pradana Zaky Romadhon, Aditea Etnawati Putri, Retno Handiarti Oktamia	
228.	Association of Sleep Quality with Fatigue among Cancer Patient who Took Chemotherapy in Jend.  Ahmad Yani Hospital Metro City 2018	1186
	Sapti Ayubbana, Anik Inayati, Indhit Tri Utami, Janu Purwono, Ludiana	
229.	Post-Traumatic Growth with Police Officer: System Review (Focused on Korean and Foreign Studies Seung Woo Han	)1191
230.	Quality of Life among Sample of Children and Teenagers with Type 1 Diabetes Mellitus in Holy City of Karbala/Iraq 2019	1196
	Wasan Mahdi Abbas Aljallad, Saad Ibrahim Al-Ghabban, Moatasem Ghazi Hassoon Al-Mhanna	
231.	The Factors Associated with Incomplete Vaccination among Children below 4 Years in Holy Karbala/ Iraq	1203
	Zahraa Khudhair Abdul Alabass, Shahrazad Shamki A.L. Jobori, Anwer H. Al-khafagi	
232.	Chipping Resistance of Nanosilica Treated Zirconia Cores Veneerd with Porcelain after Thermocycling and Cycling Loading	1211
	Hanaa F. Mahmoud, Yaser F. Gomaa, A. Nour A. Habib	
233	Assessment of Fracture Force of CAD-CAM-fabricated Occlusal Veneer Restorations with Different	

Thicknesses 1218

234. Antibacterial Activity of Sappan Wood (Caesalpinia Sappan L.) against Aggregatibacter

Hanaa Saber Rabeae, Cherif Adel Mohsen, Prof, Shams Waaz Amgad

Hendrik Setia Budi, Pratiwi Soesilowati, Mitha Jati Wirasti

<b>T</b> 7	T	7	T
х	١	/	

235.	Hormonal Regeims Using for Early Puberty Induction of Iraqi Female Lambs  Hussein Abbas Khamees, Jawad Khadim Taher, Haider Rashash Abbas	1230
236.	Evaluation of Angiopoietin One and Angiopoietin Two with Missed Abortion	1235
237.	Cellular Phone and Laptop Radiation Effects on Subjective Complaints in Informatics Students	1241
238.	The Correlation Analysis between Hypertension Controlling Factors and Blood Pressure in the Elderly Living in Griya Werdha Retirement Home, Surabaya	1246
239.	Association of Exon Deletion of MXI1 Gene with Cervical Abnormalities and Cancers Incidence in Some Iraqi Married Women	1252
240.	Curcumin and 6-Shogaol Increase Hemoglobin F Levels by Inhibiting Expression of STAT3 mRNA Gene in K562 Line Cell	1257
241.	Introduction of Probiotic Type of Yogurt for the Treatment of Dysbiosis of Patients with Lymphogranulomatosis Under Polychemotherapy by BEACOPP-II Protocol	1263
242.	Influence of Mental Health and Social Relationships on Quality of Life among Myanmar Migrant Workers in the South of Thailand	1266
243.	Lumbosacral MRI Findings in Chronic Lower Back Pain	1272
244.	Early Versus Conventional Postoperative Oral Feeding after Elective Colonic Anastomosis	1278
245.	Joint Effect Obesity and Oral Contraceptive Use towards Hypertension among Women in Thirteen Provinces in Indonesia	1283
246.	Comparison between the Antioxidant Activity of Volatile Oil and Hydrosol in Eucalyptus Camaldulensis (Young and Adult) Leaves	1288
247.	E-Health Literacy of Medical Students at a University in Central Vietnam  Lan Hoang Nguyen (Nguyen Hoang Lan), Thuy Bich Thi Le (Le Thi Bich Thuy)	1293

248.	Phenomenological Study: Nurses Experiences in Collaboration with Physician and Witch-doctors in Initial Management of Emergency Trauma Patient in Puskesmas of East Sumba Regency, East Nusa Tenggara, Indonesia	1299
249.	Determinant Factors of Alcohol Consumption by Adolescents	1304
250.	The Effects of Infant Massage on the Physical Development of Baby in Indonesian Rural Areas	1310
251.	Relationship between Polishing Techniques and Bacterial Count on Different Denture Base Materials  Mai Salah El-Din, Amr Ismail Badr, Emad Mohamed Agamy, Gehan Fekry Mohamed	1317
252.	Determination of Dyspnea in Mechanically Ventilated Patients	1323
253.	The Effect of Self-Regulated Learning Strategy in Motor Hyperactivity and Learning the Performance of Skill of Jump Shot in Basketball for Freshmen High School Students	1328
254.	The Influence of Tactical Approach Exercises on the Tactical Behavior of Some the Attack and Defense Skills by Foil (Fencing)	1333
255.	Influence Organizational Citizenship Behavior (OCB) on Performance Nurses Public Health Centre in the District Tuban	1338
256.	Skeletal Stability Using Adjustable Versus Mini Plates Following Bilateral Sagittal Split Ramus Osteotomy (BSSRO): A Randomized Clinical Trial	1342
257.	Factors Influencing Rate of Chest Compression in Cardio Pulmonary Resuscitation (CPR) by Nurses as a First Responder	1348
258.	A Comparative Study between the Use of Atropine Alone and in Combination with Glycopyrrolate in Acute Organophosphorus Poisoning in Minia Poison Control Center	1353
259.	Implant Materials Used for Orbital Floor Reconstruction	1357
260.	Recent Trends in Management of Rhegmatogenous Retinal Detachment	1363
261.	Nutritional Study on Promising Plants for Nephropathy Treatment of Male Albino Rats	1368

<b>XX</b> 262.	Study the Composition of Fatty Acids in Blood Serum Parts During the Fasting Month (Ramadan)  Mohammed A.H. Alobeady, Raghad A.A. Al Hialy	1373
263.	Expression of Amylin and Preptinin Iraqi Patients with Type 2 Diabetes Mellitus	1378
264.	Clinical Evaluation of Retention of Metallic Versus Thermoplastic Resin Frameworks in Maxillary Distal Extension Cases  Mostafa Elsayed Abdel Haleem F., Ahmed Gamal Ahmed Hassan, Emad Mohamed Tolba M. Agamy, Gehan Fekry Mohammed	1383
265.	E-Ways (Early Warning System): A Literature Study of Smartphone Application-Based Stroke Early Detection	1389
266.	Prognostic Impact of Regulatory T-cells in Predicting Response and Prognosis in Primary Breast Cancer	1394
267.	The Detection of Escherichiacoli O157: H7 Infections in Children Less than Five Years with Acute Diarrhea	1400
268.	The Impact of Healthy Educational Curriculum for Harmonized Exercises in the Development of Some Defense Skills in Handball	1407
269.	The Effect of Different Doses of Green Tea Extract on Hematological and Biochemical Parameters in Adult Male Rats  Omer Mahrouf Ali Shoshin, Ahmed Abdulaali Azeez Baker, Evan Mohammed Mostafa, Noor Abdulaali Azeez Baker, Ahmad Salih Helal	1412
270.	Clinical and Radiographic Evaluation of WaveOne Gold Single-File System in Pulpectomy of Primary Molars: A Randomized Clinical Trial	1417
271.	Intrapartum Translabial Ultrasound to Predict Successful Vaginal Birth in Ladies with Previous Caesarean Section	1423
272.	The Effect of Isotonic Training Method for the Development of HealthyMuscular Ability and Accuracy of the Performance of Volleyball Skill for Young Players	1430
273.	The Effect of Use Healthy Acupuncture in Odynolysis Chronic Pain of the Biceps Femoral Muscle of Taekwondo Players	1435

XXI	I	
287.	New Approach of Hyaluronic Acid Bound Spermatozoa-ICSI in Iraqi Infertile Patients	15
	Ezdehar N. Ali, Hayder A.L. Mossa	

287.	New Approach of Hyaluronic Acid Bound Spermatozoa-ICSI in Iraqi Infertile Patients	1518
288.	Depression and Meaning of Life of Middle-Aged Women: Mediating Effects of Self-Esteem and Social Network	1523
289.	Efforts in Improving Environmental Sanitation of Elementary School Students through Eco-education Haryoto Kusnoputranto, Suyud Warno Utomo, Hadid Sukmana, Nisrinah	1529
290.	Determinants Associated with Regular Weighing of Under Five Children in Posyandu in Kelapa Gading Sub District, Jakarta  Helwiah Umniyati, Agung Permana, Aldi Akhmad Nurhadi, Dhani Indarto, Widia Leli, Dewi Murni	1534
291.	Molecular Sequencing Study of Salmonella spp Which Isolated from Cattle Meat and Human Stool Hiba Shehab Ahmed, Wafaaabdalwahed Jheel, Saba Falah Klaif	1539
292.	What is New about Magnetic Resonance Imaging of Multiple Sclerosis?	1544
293.	Parenting Style on School Age Children that Addicted to Mobile Phone (A Phenomenology Study)  Natar Fitri Napitupulu, Wisnu Barlianto, Septi Dewi Rachmawati	1550
294.	Flowcytometric Determination of T-lymphocyte Expression of CD4 <sup>+</sup> and CD8 <sup>+</sup> Cells in Systemic Lupus Erythematosus	1555
295.	Effect of Black Seed (Nigella Sativa) Extract on Release of Some Minerals from Human Enamel: An in Vitro Study	1560
296.	Effect of Zinc, Vitamin A-Based School Snack and Nutritional Status on Diarhheal Morbidity among Children Aged 5-7 Years in Tuban: A Crossectional Study	1565
297.	Neurological And Non Neurological Role of Brain-Derived Neurotrophic Factor (BDNF) in Developing Jaw	1571
298.	Efficacy of Catharanthus Roseus Extract against Dengue Virus Type 2 Infection in Vitro	1577
299.	Psychometric Evaluation of a Feedback Conception Scale: Building Positive Feedback Practises of Charge Nurses in Public Hospitals	1581
300.	Cytotoxic Activity and Selectivity Index of Solanum Torvum Fruit on T47D Breast Cancer Cells	1586

Nunuk Helilusiatiningsih, Yunianta, Harijono, Simon Bambang Wijanarko

301.	1. The Relationship between Father Involvement with Growth and Social-Emotional Development in Preschool Children			
302.	Factors Associated with Hypertension among Adults in West Java, Indonesia	.1599		
303.	803. Symptoms and Activities of Daily Living in Patients with Chemotherapy-induced Peripheral Neuropathy			
304.	Biliary Atresia Outcome in Egypt a Descriptive Study	.1610		
305.	Registration Accuracy between Maxillary and Mandibular Teeth for Fixed Restoration Construction  Hossam Atef Abd El-Samad, Cherif A. Mohsen	.1614		
306.	The Relationship Consumption Patterns of Pokea Clams (Batissa Violaceavar. Celebensis, von Martens, 1897) and Lipids with Total Cholesterol Levels and Triglycerides in Patients with Hypertension	.1620		
307.	Modification of Ames Test According to Phenotype Features of Prototrophic Escherichia Coli	.1627		
308.	Central Venous and Arterial Gases Level Versus Lactate Clearance as an Indicator of Initial Resuscitation in Septic Patients in Intensive Care Unit  Ibrahim Abas Youseif, Ahmad Hasaneen Mohammed, Rehab Mohammed Farghly	.1633		
309.	Hematological Study and Estimation of Trace Elements in Patient with Thalassemia	.1638		
310.	Assessment of Survival and Function of Heterotopic Auto-transplanted Thyroid Tissue after Total Thyroidectomy for Non-toxic Multinodular Goiters			
311.	Somatic Manifestations of Depression in Patients of Nineva Province	.1646		
312.	Sex Determination in a Sample of Egyptian Population based on Outer and Medullary Metacarpal Measurements. A Multi-Detector Computed Tomographic Study	.1651		
313.	313. Predicting Patient Survival after Pancreaticoduodenectomy for Malignancy Based on Histopathological Criteria			
314.	Assessing Adverse Cardiac Effects of Direct Antiviral Agents in Hepatitis C Virus Infected Patients  Mohamed Abdel Azem Mohamed, Mohamed Fathy Abbas, Ahmed Hefnawy Abbas, Meriam Nabil	.1660		

Nasseif Rezk

315.	Allopurinol Versus Epinephrine in the Prevention of Post Endoscopic Retrograde Cholangiopancreatography (ERCP) Pancreatitis			
316.	Role of SWI in Early Detection of Hemorrhagic Transformation in Acute Cerebral Ischemia			
317.	Risk Factors for Pediatric Intensive Care Admission among Asthmatic Children in Aseer, South-West Saudi Arabia			
318.	Evaluation the Prevalence of Association between Cranial Congenital Fetal Anomalies and Extra-Cranial Congenital Fetal Anomalies			
319.	The Effect of Type 2 Diabetes Mellitus and Treatment Regimens on the Success of Drug Resistant Tuberculosis Treatment in 2014-2018 in Riau Province			
320.	0. Role of Vitamin C in Endothelial Dysfunction in Patients with Type 2 Diabetes Mellitus Introduction 169 Nermien Abd El Rahman Ibraheim, Fatema El Zahraa Sayed Bukhary, Yehia Zakareia Mahmoud, Mahmoud Ragab Mohamed, Salama Rabei Abdel-Rahim			
321.	Effectiveness of Providing Self-Management Education to Deal With Emesis Gravidarum on Decreasing Nausea Vomiting Pregnancy (NVP) at Private Practice Midwives Puskesmas IV Denpasar Selatan Work Area			
322.	Detection of Single Nucleotide Polymorphisms in IL-1B gene in Iraqi Patients with Hepatitis B			
323.	The Relationship between the Consumption Pattern of Pokea Clam and Protein with LDL and HDL  Levels in Patients with Hypertension			
324.	4. The Correlation between GPX-1 Serum and Hearing Threshold of SLE Patient Post Prednison Therapy .171 Ratna Anggraeni, Sally Mahdiani, Nindya Pratita			
325.	Leptospirosis Associated with Environmental Risk Factors: A Systematic Review			
326.	Comparative Study of the Effect of Chronic Aluminium Chloride Administration on the Expression of Endothelial Nitric Oxide Synthase in Rat Brain			

327.	Nutritional Evaluation on High Protein Supplement Diet by Biological Assay in Wistar Rat	1729
328.	The Impact Using Healthy Training Method to Develop Some Physical Abilities and Integrated Skills Performances of Futsal for the Deaf and Mute	1734
329.		1738
330.	Nutritional Education Regarding Ante Natal Care: Improving Knowledge, Attitudes, and Behaviors of Health Cadres  Sri Achadi Nugraheni, Martha Irene Kartasurya, Nur Endah Wahyuningsih, Naintina Lisnawati	1743
331.	The Effectiveness of Progressive Muscle Relaxation with Benson Relaxation on the Sleep Quality in Hemodialysis Patients	1748
	Theresia Uli Porman Purba, Ridha Dharmajaya, Cholina Trisa Siregar	
332.	Analysis of Factors Relating to Loyalty of Patients in Pertamina Bintang Amin Hospital Lampung in 2019	1753
333.	Risk Factors Associated with the Incidence of Cervical Cancer in Dr. H. Abdul Moeloek Hospital Bandar Lampung in 2019	1759
334.	Building Healthy Open-minded Measure for the Fourth Stage Students in the Faculties of Physical Education and Sports Sciences in Iraq	1765
335.	Value of Use Chest Ultrasound in Diagnosis of Pulmonary Embolism	1770
336.	Assessment of the Knowledge Regarding HIV/AIDS among Nursing College Students in University of Basrah	1777
337.	Levels and Differences of Leadership Practices by Eminent Coaches Amongst the Team Athlete's at Universiti Pendidikan Sultan Idris (UPSI)	1781
338.	Study of Implementation of the Early Breastfeeding Initiation Program at the Lepo-lepo Public Health Center in Kendari City	1787
339.	Psychosocial Factors to Increase Adherence Antiretroviral Treatment on New PLWH Infection  Widia Shofa Ilmiah, Stefanus Supriyanto, Purwati, Mochammad Bagus Qomaruddin	1792

### XXVI

340.	Reproductive Health Behavior of Street Youth Guided by Karya Putra Indonesia Mandiri Foundation in Central Jakarta Region	1797
	Prihayati, Hansrizka Raisna, Ridwan Amiruddin, Owildan Wisudawan B	
341.	Evaluation of the Antioxidant Levels and HbA1c of Type 2 Diabetes Patients	1801
342.	A Three-Years Survival Rates of Chronic Myeloid Leukemia Patients with Targeted Therapy	1808
343.	Gene Polymorphism of CSN1S1 and CSN3 Gene Associated with Casein Production Milk Trait in Iraqi Buffaloes (Bubalusbubalis)	1814
344.	In Vitro Evaluation of Antibacterial Effect of a New Bioactive Restorative Material (Activa)	1820
345.	A Cross-secsional Study: Analysis Risk Factors Against Hypertension in Indonesia 2014	1827
346.	The Relationship between Obesity and Dyslipidemia in Adolescents	1833
347.	Analysis of the Expression Toll-Like Receptor 4 (TLR4) in Chronic Suppurative Otitis Media with and without Cholesteatoma	1837
348.	Effect of Different Levels of Coriandrum Sativum and Piper Nigrum and their Interaction on Production, Biochemical Parameter, Liver Enzymes, TSH and Growth Hormone for Broiler Chickens S.G. Hussein, H.Q. Baker	1843
349.	Diagnostic Study and Some Pathological Aspects of Parasites Associated with Appendicitis in Al-Najaf Al-Ashraf Governorate	1849
350.	Chemical and Histological Study of Hexane Extract of Plant Capsella Bursa-pastori in Western Iraq Saja Mahmoud Najem Al Rubaie, Nidhal Ibrahim Lateef, Ashwaqtalibhameed	1853
351.	Formulation and Nutritional Appraisal of Renal Specific Formula	1859
352.	The Effect of Using Healthy Programmed Education on Learning the Basic Skills of Futsal in the Republic of Iraq	1864

353.	353. Assessment of Exam-related Anxiety among the Students of the High Healthy Vocations Institute at  Medical City	
354.	Botox Effect on Sex Hormones and Lipid Profile of Females Rats	1874
355.	Regional Health Care: Does Give Benefits for Poor Communities?  Siti Nuraini, Riski Isminar Ardianti, Deddy Kurniawansyah	1878
356.	The Effect of Olanzapine on the Improvement of the Clinical Symptom of Schizophrenia	1883
357.	Study of Some Virulence Factors of Candida Albicans Causing Intestinal Infection	1889
358.	The Effectiveness of National Early Warning Score (News) as Predictor of Mortality in Heart Failure Patients in Emergency Department	1895
359.	Breast Cancer and Hormonal Level Changes	1901
360.	Socio-demographic Characteristics and Caregiver's Quality of Life Associated with Suspected Developmental Delay among Early Childhood in Northeast of Thailand	1907
361.	Lapin Stealth Citrobacter Urogenital Infection Model  Thewaini QNA, Shnawa IMS, ALshibeeb A.R., Mosa M.	1913
362.	Dosing of Erythropoietin Stimulating Agents in Patients on Hemodialysis: A Single-Center Study  Thuraya Salim Abed, Jawad Ibrahim Rasheed, Hayder Adnan Fawzi	1918
363.	Analysis of Risk Factors Occurrence of Juvenile Delinquency Behavior	1924
364.	A Case Study of the Health Adaptation of Former Schizophrenics in Communicating with the Bugis Makassar Community in the South Sulawesi Province	1929
365.	Anxiety Symptoms in a Sample of Iraqi School Teachers	1935
366.	Psychososial Experience of Diabetes Melitus Patients While Experiencing the Diabetes Feet Ulcer in Rumah Perawatan Luka Ubalan Pamotan Village Dampit Subdistrict Malang Regency	1940
367.	Is Osteopontine of Value in Diagnosis of Knee Osteoarthritis?	1945

DOI Number: 10.37506/v11/i2/2020/ijphrd/195111

# **Analysis of Risk Factors Occurrence of Juvenile Delinquency Behavior**

Tri Anjaswarni<sup>1</sup>, Nursalam<sup>2</sup>, Sri Widati<sup>3</sup>, A. Yusuf<sup>3</sup>

<sup>1</sup>Doctoral Student of Health Science Program, Faculty of Public Health, Universitas Airlangga, <sup>2</sup>Professor, Faculty of Nursing Universitas Airlangga, <sup>3</sup>Lecturer, Faculty of Public Health Universitas Airlangga

### Introduction

Now a days juvenile delinquency is increasing in terms of number and type. Delinquency and criminality among teenagers are generally categorized as deviant behavior in society and can be interpreted as a form of teenage resistance to normative rules and values that apply in society. Many risk factors are related to deviant behavior.

**Objective:** This study aimed to analyze the risk factors that influence the occurrence of juvenile delinquency.

**Method:** This study used a cross-sectional design and a simple random sampling technique. The calculation results involved 295 samples. The independent variables were individuals, families, school environments, peer groups, coping mechanisms, lifestyles, and technologies. The dependent variable was juvenile delinquency. The data was collected using a questionnaire. The analysis used a multiple linear regression test with a significance level of  $\alpha \le 0.05$ .

**Results:** Of the seven variables, six of them significantly influence juvenile delinquency. Technology is the variable that has the greatest influence on the occurrence of teenager wear.

**Conclusion:** Technology is the most influential factor. These results indicate a significant shift in the causes of juvenile delinquency from family and peer factors to technological factors. This is quite reasonable because technology is a major need and is a trend for teenagers at this time.

**Keywords:** Risk factors, delinquency, juvenile.

### Introduction

Juvenile delinquency has occurred since the early 19th century and has become a world problem, including in Indonesia. Juvenile delinquency is included in social disorders and now the incidence rate continues to increase<sup>1</sup>. Delinquency and crime among teenagers are generally categorized as deviant behavior in society. These behavioral deviations can be interpreted as a form of teenage resistance to normative rules and values that apply in society <sup>2</sup>. Juvenile delinquency is one form of mental health disorder in the community, which directly or indirectly can affect the degree of mental health of the community. Short-term impacts can be dangerous directly to safety teenagers and groups themselves. Fights, brawls, speeding will potentially lead to injury and possibly even death. Narcotics can threaten their

lives and society, potential free sex behavior for sexually transmitted diseases, and other harmful effects. The long-term impact is the threat of future loss so that they cannot take part in the development of the nation and state. This is not in line with the expectation that teenagers are the spearhead of development and the next generation of the nation <sup>3</sup>.

Adolescence is a period of transition from childhood to adulthood that is full of responsibility, where they are required to be able to adapt to these changes <sup>4</sup>. Adaptation failure will lead to problems and behavioral disturbances in the future. This is relevant to coping mechanisms owned by individuals because coping mechanisms are a measure of the ability of teenagers to solve problems.

Furthermore, the factors that play a role in juvenile

delinquency are actors who originate from their own teenagers or individual factors. Individual factors are internal factors that are related to the abilities and abilities of individuals in running their roles and social activities. Factors that also act as risk factors for juvenile delinquency are family. This family factors related to the attitudes and habits of parents in educating and caring for children, including how parents in facilitating the economic needs of the child, personal communication patterns and proximity (bonding)<sup>4,5</sup>. The next external factor is the school environment and peergroups. School factors that become a risk factor for juvenile delinquency, related to various things that exist in the school environment include child relationships with teachers and peergroup, the presence of children in school, and adherence to school rules. For peergroup factors which are risk factors for juvenile delinquency is the frequency of children seeing exposure to harmful substances, both directly seeing and seeing events in the mass media. Included also in peergroup factors are attitudes and relationship patterns<sup>5</sup>.

Technology use to day also play a role in the occurrence of delinquency. Incorrect use of technology can have the effect of deviating behavior including violence, theft, and so on. Research shows that playing violent video games correlates with the occurrence of aggression in juvenile delinquents imprisoned<sup>6</sup>. Another factor that contributes to juvenile delinquency is a lifestyle. Changes in lifestyle due to environmental differences in the past and present will affect psychological well-being. Individuals who are not able to adapt to these lifestyle changes will lead to welfare problems<sup>7</sup>. A bad lifestyle has the potential to trigger juvenile delinquency. Based on the background above, it is necessary to analyze various risk factors that play a role in juvenile delinquency. The purpose of the study was to analyze risk factors that influence juvenile delinquency.

### **Materials and Method**

**Design:** This type of research was observational with a cross-sectional design<sup>8</sup>.

**Population and Samples:** The population was all teenagers aged 12-19 years. The number of samples was 295 teenagers who attended schools in Malang City, East Java - Indonesia, and teenagers who were undergoing coaching in class I LPKA Blitar City.

**Procedures:** After getting permission, followed by

retrieval of data that begins with providing explanations and informed consent to students as respondents with parents and or teachers representing parents, as well as to teenagers in LPKA with prison providers or parents. To provide explanations and request parental consent through telephone contact or direct interaction.

**Instrument:** Data collected using questionnaire that has been tested for validity and reliability. The instrument was developed referring to the Juvenile Counseling and Assessment Program Model (JCAP Model) as risk factors including the factors the individual, family, school, and peer group,coping mechanisms, lifestyle and technology <sup>4,5,7,9–11</sup>. Juvenile delinquency instruments were developed based on theory <sup>3,12,13</sup>.

Respondents assessed the independent variable associated himself to be risk factors and its behavior as the dependent variable. Subject given a goal by circling number 1 (strongly disagree), 2 (disagree), 3 (agree) or 4 (strongly agree) regarding the measured independent variables. For instruments related to the dependent variable, respondents were asked to rate the degree of frequency associated with their behavior by circling the numbers 0 (never), 1 (sometimes), 2 (often) and 3 (always).

**Data Analysis:** Original data were inputted into an excel spreadsheet and checked by the researcher. All data were analyzed using the SPSS 20.00 software. The analysis is done in two ways, Bivariate analysis risk factors (independent variables) on juvenile delinquency (dependent variable) with Chi-square test analysis (X²) after the data is converted into category data and then Analysis of the logistic regression test using the enter method to find out the magnitude of the influence (Odds Ratio) of each risk factor for the occurrence of juvenile delinquency.

### Result

The following is described the results of the descriptive analysis of each variable and the results of the bivariate analysis of the effect of modern and dependent-independent variables.

**Juvenile Delinquency (Juvenile Delinquency):** The juvenile delinquency which is the indicator in this study contains the 6 most types of hate based on the results of previous studies. Description of juvenile delinquency based on the type as in table 1.

No.	Variable	There is No	Low-Moderate	Weight
1.	Violent Behavior	101 (34.2%)	126 (42.7%)	68 (23.1%)
2.	Theft/Deprivation	143 (48.5%)	103 (34.9%)	49 (16.6%)
3.	Use of substances/drugs	140 (47.5%)	84 (28.5%)	71 (24.1%)
4.	Destructive- an Property	80 (27.1%)	174 (59.0%)	41 (13.9%)
5.	Sexual Abuse/Harassment	120 (40.7%)	115 (39.0%)	60 (20.3%)
6	Murder	250(84.7%)	33(11.2%)	12(4.1%)

Table 1: Overview of Juvenile Delinquency Based Type Naughty Behavior

Based on table 8 it is known that the most juvenile behavior is substance use or included in narcotics, alcohol, psychotropic,and other addictive substances (NAPZA) groups, then violent and sexual abuse/abuse. Next, to find out the effect strength of the independent variable on the occurrence of juvenile delinquency, logistic regression tests were conducted with the enter method.

Logistic Regression Test Analysis Risk Factors for Juvenile Delinquency: Analysis results to determine the power of influence risk factor (independent variable) on ramen delinquency (dependent variable) can be identified based on the value of *Odds Ratio* (OR) such as table 2.

Table 2: Test Analysis Results in Logistic Regression Risk Factors for Teenager

Variable	В	P-value (sig)	Odds Ratio (Exp B)
Individual	-0.039	0.008	0.962
Coping Mechanism	-0.038	0.186	0.963
Family	-0.020	0.005	0.980
School Environment	-0.116	0.000	0.891
Peers	0.268	0.000	1.307
Lifestyle	-0.111	0.000	0.895
Technology	0.346	0.000	1.413

Based on table 2 it is known that of the seven risk factors, which have a significant effect on juvenile delinquency there are six, namely the variables of the individual, family, school environment, peers, lifestyle and technology. Coping mechanisms do not have a significant influence on the occurrence of juvenile delinquency. The results of the analysis also show that technology is the most influential factor in the occurrence of juvenile delinquency with an Odds Ratio (OR) of 1.413. This means that technological factors have an effect 1,413 times on juvenile delinquency. Based on the OR value it is known that after technological factors, the factors that influence juvenile delinquency are peers, family, individuals, lifestyle and school environment.

### Discussion

The results of the analysis it is known that individual factors significantly influence juvenile delinquency.

Individuals who do not have the ability, do not have confidence in their success in the future, do not have a good foundation of faith that has the potential to act according to their wishes. This is in accordance with the researcher's opinion, that life skills or individual competence affect juvenile delinquency<sup>5</sup>. This is in line with the opinion of Robles that life skills in the form of soft skills are interpersonal qualities and personal attributes that a person has<sup>14</sup>. Soft skills are personal and interpersonal behavior to develop and maximize human appearance or performance. Coping mechanism factors also significantly influence juvenile delinquency. Individual failure in solving problems will have the potential for behavioral disorders including juvenile delinquency. Coping mechanisms can be constructive or destructive<sup>4</sup>. The results of family factor analysis found no significant effect on juvenile delinquency. This is not in accordance with the opinion of experts that the family

is a risk factor that affects the occurrence of juvenile delinquency. families that influence juvenile delinquency are high levels of family dynamics, violence, poverty, family dysfunction, and poor family communication and relations<sup>9</sup>. This result is also not in accordance with the opinion of experts who stated that parenting and bonding effects on children's development. Poor parenting results in poor mother-child bonding (poor bonding) which can eventually lead to criminal behavior in children<sup>15</sup>.

family factors are still a risk factor that has great potential for juvenile delinquency and should get serious attention. Families have a significant role in the success of children in the present and future. School environment factors significantly influence juvenile delinquency<sup>5</sup>. The incompatibility of school policies or rules, the pattern of teacher-student relations, has the potential for adolescents to rebellion or against existing rules. Peers have a significant effect on juvenile delinquency. This is also in line with the researcherthat juvenile delinquency is related to peer influence, antisocial behavior, and the quality and level of relationships in the group<sup>16</sup>. Further explained by other experts that bad friendships can result in problems in schools which can eventually lead to criminal behavior in children <sup>15</sup>.

At the age of adolescence, children are more likely to gather with peers than with parents. Teenagers are comfortable if they gather with their peers because they have the same problems. Thus, if the peer group is bad, it will also have a negative impact on adolescents. Lifestyle factors significantly influence juvenile delinquency. This is in accordance with the theory that a good lifestyle will have a good impact on adolescents. Conversely, a bad lifestyle will have an adverse effect on adolescents. Associated with sleep rest patterns explained that sleep disorders or poor sleep patterns will interfere with emotional stability, individuals become irritable and irritable. Emotional disorders that occur due to disturbances or sleep patterns that are not good will have the potential for violence<sup>17</sup>. Likewise, the habit of exercise activities or recreation can reduce tension so as to make individual behavior adaptive. The inappropriate use of leisure time and recreational culture will have an impact on health <sup>18</sup>.

Technological factors significantly influence juvenile delinquency <sup>11</sup>. This result is quite relevant because of the phenomena of life in today's technological era, making the internet and cellphones a necessity. Individuals are more pleased with cyberspace than the world of reality

by using the internet and cell phone facilities they have. Related to the six indicators of juvenile delinquency behavior, it is known that the most juvenile behavior is the use of substances or included in narcotics, alcohol, psychotropic and other addictive substances (NAPZA), then violent behavior and sexual abuse. Furthermore, the results of the logistic regression test with the enter method are known that there are six risk factors that significantly influence juvenile delinquency, namely individual, family, school environment, peers, lifestyle and technology variables, while coping mechanisms do not have a significant influence.

The logistic regression test results are different from the bivariate test results with the chi-square test which shows that the coping mechanism has a significant effect, while the family does not significantly influence. In the opinion of researchers, these results indicate that the family is a factor that still must be considered and also determines the occurrence of juvenile delinquency. The family is the first place for individuals to learn and the golden age is formed early in the family. This is explained by Wiyani that the beginning of a child's life (early age) is a golden age ("Golden Age")<sup>19</sup>. Golden Age is a period of growth and development of children that occurs at the age of 0 to 6 years, where this time a child is in a family environment. Associated with coping mechanisms do not have a significant effect, in the opinion of researchers because these factors are not dominant in influencing adolescent attitudes and are internal. As is known that external factors are factors that are a more and more powerful influence on adolescents. So that the possibility of coping mechanisms will be maladaptive if the external push is too strong in adolescents. The results of the analysis also show that technology is the most influential factor in juvenile delinquency when compared to other factors. This is in accordance with the opinion which explains that the development of information and communication technology through the internet and cellphones (cellphones) is a phenomenon of modern society that can have an impact on society both positively and negatively<sup>11</sup>.

### **Conclusions**

Technology is a factor that has the most influence on juvenile delinquency. Inappropriate use of technology, for example, the wrong use of gadgets has the potential for juvenile delinquency. This shows that in this digital era there has been a significant shift in the causes of juvenile delinquency, from family and peer factors

to technological factors. This is reasonable because technology is now a major need for teenagers. Based on these results, further analysis is needed regarding the indicators of the factors that influence juvenile delinquency in order to develop new instruments in the early detection of juvenile delinquency behavior.

**Ethical Clearance:** This research was approved by the Health Research Ethics Commission (KEPK) of the Faculty of Public Health, Airlangga University Surabaya, number 534/EA/KEPK/2018.

Source of Funding: Self-funding

Conflict of Interest: None

### Reference

- 1. Steketee M, Gruszczyńska B. Juvenile delinquency in six new EU member states. Eur J Crim Policy Res. 2010;16(2):111–25.
- Badan Pusat Statistik. Profil kriminalitas remaja 2010: Studi di Lembaga Pemasyarakatan (Lapas) Anak di Palembang, Tangerang, Kutoarjo, dan Blitar. Badan Pusat Statistik. 2010.
- Anjaswarni T. Juvenile Delinquency, Kenakalan Remaja: Teori, Hasil Penelitian Dan Aplikasi Asuhan Keperawatan. Sidoarjo Zifatama Publ. 2014;
- 4. Stuart GW. Principles and Practice of Psychiatric Nursing-E-Book. Elsevier Health Sciences; 2014.
- Calhoun GB, Glaser BA, Bartolomucci CL. Practice & theory: The juvenile counseling and assessment model and program: A conceptualization and intervention for juvenile delinquency. J Couns Dev. 2001;79:3–13.
- 6. DeLisi M, Vaughn MG, Gentile DA, Anderson CA, Shook JJ. Violent video games, delinquency, and youth violence: New evidence. Youth Violence Juv Justice. 2013;11(2):132–42.

- 7. Heath CJ, Berman JS. Evolutionary lifestyle and mental health. Evol Psychol. 2008;6(1):147470490800600100.
- 8. Nursalam M. Metodologi Penelitian Ilmu Keperawatan Edisi 3. Jakarta. Penerbit Salemba Medika; 2014.
- Henggeler SW, Edwards J, Borduin CM. The family relations of female juvenile delinquents. J Abnorm Child Psychol. 1987;15(2):199–209.
- Baqutayan SMS. Stress and coping mechanisms: A historical overview. Mediterr J Soc Sci. 2015;6(2 S1):479.
- Abdulkarim A, Zainul A, Maryani E. Perilaku Asertif dan Kecenderungan Kenakalan Remaja Berdasarkan Pola Asuh dan Peran Media Massa. J Psikol. 2014;41(1):74–88.
- 12. Kratcoski PC, Kratcoski LD. Juvenile delinquency. Prentice-Hall Englewood Cliffs, NJ; 1990.
- 13. Heilbrun K, Goldstein NES, Redding RE. Juvenile delinquency: Prevention, assessment, and intervention. Oxford University Press; 2005.
- 14. Robles MM. Executive perceptions of the top 10 soft skills needed in today's workplace. Bus Commun Q. 2012;75(4):453–65.
- 15. Tremblay RE, Craig WM. Developmental juvenile delinquency prevention. Eur J Crim Policy Res. 1997;5(2):33–49.
- 16. Howell JC, Lipsey MW. based guidelines for juvenile justice programs. Justice Res Policy. 2012;14(1):17–34.
- 17. Taylor C, Lillis C, LeMone P, Lynn PA. Fundamentals of nursing: The art and science of nursing care. Lippincott-Raven; 1997.
- 18. Tekin A. Wild life recreation: Utilizing wilderness adventure therapy to prevent delinquency in minors. J Hum Sci. 2010;7(2):640–54.
- 19. Wiyani NA. Psikologi perkembangan anak usia dini. Yogyakarta Gava Media. 2014;