29.pdf

by

Submission date: 24-Apr-2023 09:00PM (UTC+0700)
Submission ID: 2074016443
File name: 29.pdf (6.27M)
Word count: 201788
Character count: 1095014

ResearchGate

See discussions, stats, and author profiles for this publication at: https://www.researchgate.net/publication/369860953

Meta Study of the Relationship between Knowledge and Incentives with Posyandu Cadre Performance

Article *in* Indian Journal of Forensic Medicine and Toxicology · April 2023

DOI: 10.37506/ijfmt.v16i2.17939

CITATIONS
0

READS
7

5 authors, including:

Syamsul Arifin
96 PUBLICATIONS **120** CITATIONS
SEE PROFILE

Ari Yunanto
Universitas Lambung Mangkurat
34 PUBLICATIONS **110** CITATIONS
SEE PROFILE

Eko Suhartono
Universitas Lambung Mangkurat
131 PUBLICATIONS **570** CITATIONS
SEE PROFILE

Fauzie Rahman
Universitas Lambung Mangkurat
68 PUBLICATIONS **320** CITATIONS
SEE PROFILE

Some of the authors of this publication are also working on these related projects:

Maternal and Newborn Health View project

PROGRAM JAMINAN KESEHATAN NASIONAL DARI ASPEK SUMBER DAYA MANUSIA PELAKSANA PELAYANAN KESEHATAN View project

All content following this page was uploaded by Syamsul Arifin on 07 April 2023.

The user has requested enhancement of the downloaded file.

ISSN-0973-9122 (Print) ● ISSN-0973-9130 (Electronic)

Volume 16 / Number 2 / April-June 2022

Indian Journal of Forensic Medicine & Toxicology

Website: www.ijfmt.com

Official Organ of Indian Association of Medico-Legal Experts (Regd.)

Indian Journal of Forensic Medicine & Toxicology

Editor in Chief

Prof. SK Dhattarwal

Forensic Medicine, PGIMS, Rohtak, Haryana

INTERNATIONAL EDITORIAL ADVISORY BOARD

1. **Prof Mete Gulmen** Cukurova University, TURKEY
2. **Prof. Leandro Duarte De Carvalho,** Minas Gerais, Belo Horizante, Brazil
3. **Prof. Donata Favretto** (Full Professor) Forensic Toxicology at University of Padova, Italy
4. **Prof. Babak Mostafazadeh** Department of Forensic Medicine & Toxicology, Shahid Beheshti University of Medical Sciences, Tehran-Iran
5. **Prof Halis Dokgoz,** Mersin University, TURKEY
6. **Prof Jozef Sidlo,** Comenius University, Bratislava, SLOVAKIA
7. **Dr. Rahul Pathak** (Lecturer) Forensic Science, Dept of Life Sciences Anglia Ruskin University, Cambridge, United Kingdom
8. **Dr. Hareesh** (Professor & Head) Forensic Medicine, Ayder Referral Hospital, College of Health Sciences, Mekelle University, Mekelle Ethiopia East Africa
9. **Dr. Mokhtar Ahmed Alhrani** (Specialist) Forensic Medicine & Clinical Toxicology, Director of Forensic Medicine Unit, Attorney General's Office, Sana'a, Yemen
10. **Dr. Sarathchandra** Kodikara (Senior Lecturer) Forensic Medicine, Department of Forensic Medicine, Faculty of Medicine, University of Peradeniya, Sri Lanka
11. **Dr Noha A. Magdie El Rafie,** Forensic Toxicology, Ain Shams University, Cairo, EGYPT

SCIENTIFIC COMMITTEE

1. **Prof Udai Pratap Singh,** Department of Anthropology Lucknow University Lucknow
2. **Dr Anil Rahule** (Associate Professor) Dept of Anatomy, Govt Medical College Nagpur
3. Dr Shankar Bakkanwar (Associate Professor) Forensic Medicine, Kasturba Medical College, Manipal, Karnatakad
4. **Dr K. Ravikumar** Raksha Shakti University, Ahmedabad, Gujrat.
5. **Dr. Pragnesh Parmar** (Associate Professor) Forensic Medicine, Valsad, Gujrat
6. **Dr Vandana Mudda** (Awati) (Associate Prof) Dept of FMT, M.R.Medical College, Gulbarga, Karnataka.
7. **Dr. Asha Srivastava** (Senior Scientific Officer) Forensic Psychology, Central Forensic Science Laboratory, CBI, Delhi
8. **Dr. Lav Kesharwani** (Asst.Prof.) School of Forensic Science, Sam Higginbottom Institute of Agriculture Technology & Sciences, Allahabad U.P.
9. **Dr. Anu Sharma** (Associate Prof) Dept of Anatomy, DMCH, Ludhiana (PB)
10. **Dr. Shalini Gupta** (Prof) Oral Pathology and Microbiology, Dental Sciences King George Medical University, Lucknow, UP
11. **Dr Rituja Sharma,** Associate Prof, Law Banasthali Vidyapeeth Jaipur

NATIONAL EDITORIAL ADVISORY BOARD

Chairman

Prof Sudhir K Gupta - Head, Department of Forensic Medicine
All India Institute of Medical Sciences, New Delhi

Members

1. **Prof. N K Aggrawal** Forensic Medicine, UCMS, Delhi
2. **Prof Ajay Ghangale** Forensic Medicine Dr DY Patil Medical College, Pune, Maharashtra
3. **Dr. Amar Jyoti** Patwory Professor, Forensic Medicine NEIGRIHMS, Shillong
4. **Dr S. Venkata Raghava** Professor, Forensic Medicine, Banglore Medical College, Bengaluru
5. **Prof Praveen Arora,** Professor Department of Forensic Medicine & Toxicology, SAIMS, Indore
6. **Dr. Pankaj Datta** (Principal & Head) Department of Prosthodontics, Indraprastha Dental College & Hospital, Ghaziabad
7. Dr. Mahindra Nagar (Head) Department of Anatomy, UCMS & GTB Hospital, Delhi
8. **Dr. Virender Kumar Chhoker** Professor Forensic Medicine and Toxicology, Santosh Medical College, Ghaziabad, UP
9. **Dr. Dayanand G Gannur** (Professor) Department of Forensic Medicine & Toxicology, Shri BM Patil Medical College, Hospital & Research centre, Bijapur, Karnataka
10. **Dr. Alok Kumar** Professor Department of Forensic Medicine & Toxicology, UP Rural Institute of Medical Sciences and Research, Saifai, Etawah, U.P.

"Indian Journal of Forensic Medicine & Toxicology" is peer reviewed quarterly journal. It deals with Forensic Medicine, Forensic Science, Toxicology, DNA fingerprinting, sexual medicine and environment medicine. It has been assigned International standard serial No. p-0973-9122 and e- 0973-9130. The Journal has been assigned RNI No. DELENG/2008/21789. The journal is covered by EMBASE (Excerpta Medica Database). The journal is also abstracted in Chemical Abstracts (CAS) database (USA. The journal is also covered by EBSCO (USA) database. It is now offical publication of Indian Association of Medico-Legal Experts (Regd.).

Print-ISSN:0973-9122 Electronic - ISSn: 0973-9130

Frequency: Quarterly,

© All Rights reserved The views and opinions expressed are of the authors and not of the Indian Journal of Forensic Medicine & Toxicology. Indian Journal of Forensic Medicine & Toxicology does not guarantee directly or indirectly the quality or efficacy of any products or service featured in the advertisement in the journal, which are purely commercial.

Website: www.ijfmt.com

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 Forensic Medicine & Toxicology

Contents

Volume 16, Number 2 April-June 2022

1. Comparative Study between Variable Computer Printed Documents to Identify the Type of the Producing Output Devices 1
Abeer Sayed Abdo Borae , Yasser Fouad Abd El-Monem Al-Akid , Khaled Abd El-Azeem Mahmoud Tamim, NesrineAbd El-Rahman Mahmoud

2. A Correlation Study between Fingerprints and Lip Prints among Twins 11
M.Sugatha, R.Jenifer Jacquiline , M.Taqiuddinkhan

3. Demographic Study of Blunt Trauma Chest in Varanasi Region 20
Roopam Mourya, S.K.Pandey, S.K. Bhartiya

4. Legal Aspects of Maternity Nursesperforming Childbirth Assistance Measures in the Framework of Carrying Out Doctor's Duties Against the Birth Process in Breach Locations 27
Makhfudli, Gregory Agung Himawan , Nisa AmaliyaVariansyah , MokhamadKhoirul Huda

5. Isolation and Identification of Salmonella typhimurium in an Umbilical Area from Chicks in Kerbala City 35
Mustafa Mahmood NaemaAl-taeeand , Sahar Mahdi Hayyawi Al-Rubay

6. The Effect of Hypertension as a Comorbid Factor on the Length of Stay in Patients Undergoing Cholecystectomy 42
Albertus Magnus Arya Abisatya, Diah Purwaningsari , Wahyu Prasasti Mutiadesi, Redemptus Yudadi

7. Prostate Specific Antigen as Predictive Factor for Androgenemia in Women 49
Ali Mohammed Mooshly AL-Bahadly, Maytham Khazza Kadhim AL-Behadili , Mohammed Shakir Atiyah

8. The Effect of ARV on Rate of HIV Vertical Transmission from Exclusive Breastfeeding Mothers: A Systematic Review 56
Amanah Fatmadani Suwarno, Dwiyanti Puspitasari, Pudji Lestari

9. The Possible Effect of Celastrol on Ameliorating Mitochondrial Dysfunction and Neuro-inflammation in Sodium Valproate Induced- Rat Model of Autism 65
AmlAlaa El-Din El-Sayed Ahmed , Samia HussienAbou El-Seoud, Fleur Fathi Abdel Moneim Rasha Osama El-Esawy

10. The Effectiveness of Facet Joint Local Corticosteroid Injection in Diagnosis and Treatment of Facet Joint Syndrome 77
Amr Sabry AlBakry, Ahmed Saleh ElSayed , Hamada Mostafa AbdulAal, ElSaid Hamdy Zaki

11. The Management of Giant Cell Arteritis (GCA) Overlapping with Sjogren Syndrome : A Case Report....87
Arina Mana Sikana, Awalia

12. Smart Materials- A Review....94
Arpit Arora, Anushka Arora, Karthik Shetty

13. Effect of Oxytocin Augmentation on Neonatal Bilirubin Levels : A Case Control Study....101
Jitendra Shukla, Piyusha Chandrayan, Piyusha Chandrayan

14. Study of Working Hours of Indonesian Civil Servant Doctors in Relation to the Rule of Three Licenses for Practice and Labor Law....105
Noviana Indarti, SherlyIntan, Sylvia Meylinda, Tagor Sibarani, Mokhamad Khoirul Huda

15. Profile of Pneumocystis JiroveciiPneumoia in HIV/AIDS Patients in Dr. Soetomo General Hospital of East Java Province....115
Pius Sebastian Ginting, Bramantono, RestiYudhawati Meliana, Musofa Rusli

16. Early Childhood Malnourishment and its Associated Factors - Uttarakhand....122
Pratiti Haldar, Lekha Viswanath, Ashok Kumar Srivastava

17. A Quasi-Experimental Study to Assess the Effectiveness of Guided Imagery Therapy on Infertility Related Stress and Quality of Life among Infertile Women....129
Priyanka Christian , Sapna Bhavin Patel , Anjali Tiwari

18. Meta Study of the Relationship between Knowledge and Incentives with Posyandu Cadre Performance....139
Arjan Arkasi , Syamsul Arifin, Ari Yunanto, Eko Suhartono , Fauzie Rahman

19. Comparing Walking age, Receptive and Expressive Language Profiles between Speech Delay Children with and without Hearing Loss....143
Aulia Sakinah , Nyilo Purnami, Thtkl K , Nuniek Nugraheni S, Sulistiawati

20. Association of Plasma Interferon-a(IFN-a) with C-Reactive Protein (CRP) Level and Disease Activity in Systemic Lupus Erythematosus (SLE) Patients....151
Awalia, Harianto Notopuro, Joewono Soeroso

21. Assessment of Factors Influencing Uptake of National Programme on Immunization among People in Chanchaga L.G.A., Niger State, Nigeria....158
Baba A. Dare , Muhammad Ibrahim Nakadiri , Kperogi, I.I, Jidda K. A, Abdullahi, Muhammed Bukola

22. Analysis of Staphylococcus aureus and Escherichia Coli and its Susceptibility to Antibiotic in Catheter-Associated Urinary Tract Infection Patients at Hospital in Province of West Nusa Tenggara....166
BaiqIsti Hijriani, ManikRetno Wahyunitisari, Agung Dwi Wahyu Widodo

23. The Outcome of Limberg Flap Procedure in the Management of Primary Chronic Sacrococcygeal Pilonidal Sinus Disease....174
Bashar Akram Al-Bayati, Salah Salih Mohammed , Mohamad Theyab Hamad

24. Effectiveness of Educational InterventionRegarding Child Sexual Abuse on Knowledge and Attitude of Parents.....180
Bhavani Bangarkodi Balakrishna, Valsamma Joseph

25. Legal Certainty of Hospital Service Operations During Pandemic Corona Virus Disease 2019 191
Brilian TitaPutri, Cinderella A.N Rieuwpassa, Gede Angga Dharmadiputra, R. HardadiAirlangga, Mokhamad Khoirul Huda

26. The Difference of EPDS Examination Results before and after Delivery in High-Risk Pregnant Woman at Unair Hospital.....199
Delvanny Alfikri Rekaputri Wicaksono , Agustina Konginan , Nalini Muhdi

27. The Analysis of Personal Protective Equipment Covid-19 in The Hospital Sallewangan, Maros Regency 2020.....206
Fetrawaty Mansyur

28. Sensorineural Hearing Loss and Cochlear Outer Hair Cell Function Nasopharyngeal Carcinoma Due to Influence of Cisplatin 212
Fira Sofia , H.M.S Wiyadi , Achmad Chusnu Romdhoni

29. Enucleation of Scrotal Epidermoid Cyst: Case Report.....219
Halim Perdana Kusuma , Nugrohoaji Dharmawan

30. Role of Fine Needle Aspiration Cytology in Evaluation of Cervical Lymphadenopathy 225
Harsimrat Singh , Abhay Kumar Singh , Inderpreet Singh Oberoi

31. Effect of Tamsulosin on Biomarkers after Kidney Stones Lithotripsy.....230
Iman A. Ismael

32. Stimulation of Growth and Development of Pandalungan Toddler in Indonesia 237
Lantin Sulistyorini , EkaAfdi Septiyono , NuningDwi Merina , PeniPerdani Juliningrum , Ira Rahmawati

33. Social Status and Oral Hygiene with Quality of Life in Patients with Primary Hypertension.....246
Masriadi, Muhammad Fajrin Wijaya , Maqhfirah Amiruddin, Tuti Alawiyah , Nur Rahmayani

34. Diagnostic Problems in Leptospirosis Patients : A Case Report 254
Megawati , Musofa Rusli

35. Serum Levels of Interleukin-2 and Interleukin-6 among Helicobacter Pylori Positive Patients in Relation to Prognosis of Gastro-duodenal Disease 259
Methaq M. Neamah AL-Hilfi, Khairallah A.S Mohammed , Naael H. Ali , Ali Dawood AL-Hilfi

36. Transnasal Esophagoscopy Procedure in Outpatient Clinic at Dr. Soetomo General Academic Hospital 266
Muhammad Qodri Anantomo , Rizka Fathoni Perdana

37. Comparison of the Effect of Glycemic Control on the Incidence of Fetal Macrosomia and Large for Gestational Age in Gestational Diabetes Mellitus Patients; A Systematic Review.....273
Natasha Tiara Bernadette, Budi Prasetyo, Sony Wibisono, Bambang Purwanto

38. Antibacterial Activity of Antimicrobial Peptide Indolicidin against Multidrug-Resistant Klebseilla pneumoniae Isolated from Patients with Burns 282
Noor Ibrahim Zaidan , Kais Kassim Ghaima , Hayder Mazin Rasool Al-Haboobi

39. The Relationship between Stress Level and Nutritional Status of Students at SMP Negeri 56 Surabaya 291
Rani Lauriencia Permatasari , Sri Umijati , Khairina , Izzatul Fithriyah

40. Meta Analysis: Relationship of Husband's Knowledge and Support During Pregnancy with Antenatal Care (ANC) Visits by Pregnant Mothers 298
Rizka Yuli Wahyuni , ZairinNoor , Roselina Panghiyangani , Husaini , Meitria Syahadatina Noor

41. Use of ICT (Information and Communication Technologies) in Health Facilities During the COVID-19 Pandemic: Case of Morocco 310
Rouani Abdeljabbar , Al Ibrahimi el Mehdi , Lamri Driss , Himmi Bennacer , Elouakfaoui Aziz

42. The Role of IL-5, IL-33 and Total IgE in a Sample of Workers Suffering from Paints and Mills Asthmatic Patients 319
Ruaa Adnan Ali

43. The Relation between the Plasma Level of Testosterone Hormone and the Severity of COVID-19 in Iraqi Patients 326
Rusul A. Abass , Manal K Rasheed , Ghassan T. Saeed

44. The Effects of Water Provision and Education on Students' Hydration Status, Cognitive Abilities, and Fine Motor Function in A Full-Day Primary School 334
SaidahRauf , Santi AprilianLestaluhu

45. Effect of Lifestyle Modification Guidelines on Mild Preeclampsia 343
Sally Ebrahim Rashad Ali , Ragaa Ali Mohamed Abdraboo , Nagat Salah Shalaby , Inaam Hassan Abdelati

46. Dhikr and Prayer Guidance on Peace of Mind and Blood Pressure Control 351
Samsualam , Masriadi

47. Emotional and Cognitive Impairment among Cardiac Patients - A Narrative Review 358
Sarika M L , Sasmita Das , Suresh Kumar Behera

48. Molecular Detection of abaI Genes in Acinetobacter baumannii Isolated from Clincal Speciemens in Some Iraqi Hospitals 366
Shahad Mahdi Salih , Zainab H.Abood Al-Asady

49. Wild Strawberry Fragaria vesca L. extracts Hepatoprotective Activities Against Paracetamol-Induced Hepatotoxicity in Male Wistar Rats 374
Sihning E. J. T. , Diah Purwaningsari , Nita Pranitasari , Liliawanti

50. Successful Treatment with Rectal tube Placement and Barium Enema in Uncomplicated Acute Sigmoid Volvulus: A Case Report 381
Stevanus Immanuel Silahooij , Budi Widodo

51. The Contribution of Family Cohesion And Self-Efficacy on the Mental Health of Older Adults: A Survey Conducted in Aceh, Indonesia 387
SufyanAnwar , Sukma Elida , Khairunnas

52. Soluble Antimicrobial Peptide Pyocin of Pseudomonas aeruginosa and its Therapeutics: A Review Article 395
Sura Saleem Albermani , EssamFadel Al-wan Al-Jumaili

53. Anthropometric Measurement of Nasal Parameters in Adult Malay Population 404
Thin Thin Aung , Kartikeya Tiwari , Osama Bahaa Mahammed

54. Evaluation of Blood Parameters When Infected with Candida Albicansand Its Recovery Using Probiotics 413
Umniyahqays jasim, Dalia abdalkareem

55. Impact of Dietary Ginger and Ginseng Powder in Broiler Diet on the Physiological Traits and Immune Response of Avian Influenza 425
Vian A.A.M. Hussein , Mushtaq T. Abdulwahid

56. Pharmaceutical Nano-Delivery Systems: A Review 433
Wissam S. Mahmod , Essam FadelAlwan Al-Jumaili

57. The Legal Responsibility to the Family for Shackling People with Mental Illness During the Covid-19 Pandemic 440
Yuna Ariawan, Cempaka Dewi, Ratih Wulansari Manuaba , Chandranita Manuaba, Mokhamad Khoirul Huda

58. Molecular Study Using Real Time PCR to Detect Influenza Viruses (Flu A, Flu B and RSV) in Patients at Ramadi Hospital 447
Abbas O. Al.janabi, Mohammed Amer Fayyadh, Aseel Khalid Hameed, Najeeb Mohammed Hussein

59. Anti-Hyperlipidemia Effects of Sijukkot Leaf Extract Ethanol (Lactuca Indica) 456
Ida Duma Riris, Saronom S ilaban, Marini Damanik, Nora Susanti

Uttarakhand, India. Int J Community Med Public Health 2016;3:1043-8.

16. Vyas S, Kandpal S D, Semwal J, Deepshikha. A Study on Morbidity Profile and Associated Risk Factors in a Rural Area of Dehradun. Journal of Clinical and Diagnostic Research. 2014;8(8):1-4
17. Jain N K, Mangal V, Mishra A, Ritu. Study of protein energy malnutrition cases in slums of Rishikesh. International Journal of current research. 2012;4(11):63-66
18. Global Hunger Index (2019) India [Internet]. Published on October 2019. Accessed on 8th May 2020. Available from: https://www.globalhungerindex.org/india.html
19. Vyas S, Kandpal SD, Semwal J, Deepshikha. A study on undernutrition and its socioeconomic correlates among toddlers in a rural area of Uttarakhand, India. International Journal of Community Medicine and Public Health. 2016; 3:1043-8.
20. Devi P, Kaur S. An exploratory study to assess the prevalence and risk factors of malnutrition among under-five children residing in selected rural areas of district Sirmaur, Himachal Pradesh. BLDE University Journal of Health Sciences.2019;4:7-10.
21. Katoch O M, Sharma A. Socioeconomic Factors, Living Conditions and Child Undernutrition among School going Children in Rural Areas of district Doda, Jammu & Kashmir, India: A Preliminary Study. Indian Journal of Nutrition. 2016;3(1):123
22. Singh H, Gupta A, Sachdeva A, Barall D, Kumar D, Singh S. Nutritional status of 1-5 years children in a hilly tribal district of north India [Internet]. International Journal of Contemporary Medical Research. [cited 2021 Jun 18].Available from: https://www.ijcmr.com/uploads/7/7/4/6/77464738/ijcmr_1076_dec_10.pdf
23. Gupta S, Dinesh K. An Intervention Study in Malnutrition among Under Five Children in a Rural Area of Jammu. J K Science.2013;15(2):73-76
24. Rather GM, Fayaz S. Malnutrition among school children (0- 14 years) of gujars of great Kashmir Himalayan range (J & K state) [Internet]. International Journal of Scientific and Research Publications.2015;5(3):1-12
25. State Fact Sheet: Himachal Pradesh. NFHS – 4. [Accessed on 18th June 2021]. Available from: http://rchiips.org/nfhs/pdf/NFHS4/HP_FactSheet.pdf
26. State Fact Sheet: Jammu and Kashmir. NFHS – 4. [Accessed on 18th June 2021]. Available from: http://rchiips.org/nfhs/FCTS/JK/JK_Factsheet_21_Jammu.pdf
27. Singh A. Malnutrition, Swasth India [Internet]. How Nutrition During First 1000 Days And Anaemia In Mothers Is Linked To Malnutrition In Children. 2020 Jan 10th [accessed on 6th May 2020]. Available from: https://swachhindia.ndtv.com/how-nutrition-during-first-1000-days-and-anaemia-in-mothers-is-linked-to-malnutrition-in-children-40625/
28. Nutrition in the first 1,000 days: A Foundation for Brain Development and Learning[Internet]. Accessed on 8th May 2020. Available from:https://thousanddays.org/wp-content/uploads/1000Days-Nutrition_Brief_Brain-Think_Babies_FINAL.pdf
29. Hamner, H.C., Perrine, C.G. & Scanlon, K.S. (2016). Usual Intake of Key Minerals among Children in the Second Year of Life, NHANES 2003–2012. Nutrients, 8(8):468.
30. Wachs, T.D., Georgieff, M., Cusick, S. & McEwen, B.S. (2013). Issues in the timing of early interventions: contributions from nutrition, neuroscience, and psychological research, Annals of the New York Academy of Sciences, 1308:89-106.
31. Beard, J.L. & J.R. Connor. (2003). Iron Status and Neural Functioning, Annual Review of Nutrition, 23: 41-58.
32. Lozoff, B. et al. (2006). Long-Lasting Neural and Behavioral Effects of Iron Deficiency in Infancy. Nutrition Review, 64(5 Pt 2): S34–S91.

A Quasi-Experimental Study to Assess the Effectiveness of Guided Imagery Therapy on Infertility Related Stress and Quality of Life among Infertile Women

Priyanka Christian[1], Sapna Bhavin Patel[2], Anjali Tiwari[3]

[1]M.Sc Nursing, [2]Assistant Professor, [3]Assistant Professor and HOD, Dept. of Obstetrics & Gynaecological Nursing, Manikaka Topawala Institute of Nursing, CHARUSAT, Gujarat

Abstract

Introduction and Background: According to WHO infertility is failure to achieve a pregnancy after 12 months or more than or without use of any contraception method, it is a reproductive system disease.Infertility can cause increase level of stress and create negative thought. So this study is aimed to find out effectiveness of guided imagery technique on stress and quality of life of infertile women. **Methodology:** The research approach used was quantitative approach. Quasi experimental: nonequivalent control group, Pre-test post-test design was used. 66 infertile women were selected for both the group was selected 33 subjects in each group. Pre assessment for stress level & quality of life was done for both experimental and control group. The tool of data collection included a socio-demographic Performa, Perceived stress scale (PSM- 10) and FertiQol scale assessment tool. Guided imagery provided to experimental group. The intervention was given to infertile women is recorded 15 minutes audio tract. Participants had listened the infertile specific GI recording once in a day for 7 consecutive days. In control group, the GI therapy did not provided. **Result:** The data was analyzed by using descriptive and inferential statistics. The study result shows that effect of GI intervention on stress intensity and on QoL are effective and P value for stress was <0.001 and for QoL p value was <0.001. **Conclusion:** The study concluded that Guided imagery technique is effective in reducing stress level and improve quality of life.

***Key words**: Effectiveness, Guided imagery therapy, stress associated with infertility, living standard, infertile female.*

Background of the Study

According to WHO infertility is inability to get a pregnancy later than twelve months or more than or without use of any contraception method, it is a reproductive system disease.

Corresponding Author:
Ms. Priyanka Christian
M.Sc Nursing, Manikaka Topawala Institute of Nursing, CHARUSAT, Gujarat.
Email: pinkymacwan95@gmail.com

Infertility divided into two types**:** Primary infertility: Means that the couple has never conceived because of inability to become pregnant in that those mothers also include who have a miscarriages, that may result in still birth or ever having a live birth**.** Secondary infertility: Means that couple has experience of pregnancy before and later failed to conceive due to the some reproduction problem like impaired sperm production, fallopian tube damage or other abnormal uterine condition in women.

There are many causes for the infertility like endocrine disorder, physical disorder, ovarian disorder, defectiveness in ovum and sperm etc. But, sometime psychological problem like stressful life is also cause for infertility. There are many laboratory investigation are used for detection of the infertility cause, and many surgical and medical intervention use to treat the infertility like hormonal drug therapy, IUI & IVF.

Infertility related QoL includes an impression of infertile patient's life status during their fruitless period from a wide perspective. Countless examinations uncovered that fertile ladies experienced less fortunate QoL during the time of infertility.

Infertility is major problem in the India; in 2015, 27.5 million couples affected from the infertility in India according to Ernst and Young report. 40-50% of cases are registered due to female factor and 30-40% of cases are registered due to male factor.

Infertility is a significant general medical problem with authentic social outcome. The physical and mental effect of infertility can be pulverizing to the infertile ladies and to their partner.Infertility often brings about irritation, hopelessness, nervousness, and sentiments of worthlessness. There be a numerous psychological and social problem in the infertile women.

Infertility has many psychological effects on the women which are associated with stress and it is a more stressful event in their life. Stress reduction is possible through two methods; using pharmacological methods and complementary medicine.There is a different type of pharmacological and non- pharmacological treatment for the infertility. Previous research suggests that there are many non- pharmacological treatment use of reducing the psychological problem of infertile women. In that the guided imagery is non-pharmacological treatment which has no any side effect.[6] Guided descriptions is a useful during stress managing process for many reasons. It can provide relax to mind and help to reduce stress.

Infertility has been a neglected area of research when compared to research on fertility. Globally between 50 to 80 million couple at some point their reproductive lives suffer from infertility problems and also related psychological disturbance So this study aimed is to diminish the infertility related anxiety and get better the excellence of life through guided imagery intervention because the stress is the physiological or psychological tension that may lead to disturbance in physical, emotional and psychological well being of women and it affect the reproductive outcome. So guided imagery intervention is reduce the stress and get better value of life of infertile female.

Objective of the study were

· To evaluate effectiveness of GI therapy on infertility related stress amongst infertile women.

· To evaluate effectiveness of GI therapy on quality of life amongst infertile women.

· To find out the association between pre-intervention levels of infertility related stress and quality of life amongst infertile women with selected socio-demographical variable.

Material and Methods

Quantitative approach was obtained by investigator for assess the efficiency of GI therapy on the infertility related stress & improve value of well-being. Research design of the study wasnonequivalent control group, Pre-test post-test design

Variable of the study:

Dependent variable: stress level and QoL of infertile female.

Independent variable: Guided imagery therapy

Socio demographic variable: socio-demographic variable included Age, height, weight, type of diet, education status, age at marriage, age at menarche, duration of marriage, living pattern, type of family, social support system, occupation, monthly family income, place of residence, duration of diagnosed infertility, use of contraception, received infertility treatment, treatment duration, causes of infertility, body mass index(BMI).

Research setting:

It is the area where the research study is conducted.

- Morpheus Usha fertility center, Anand
- Spring IVF center, Ahmedabad
- Cigna IVF center, Ahmedabad
- Ansh women hospital, Ahmedabad

Population:

Target population: primary infertility.

Accessible population: primary infertile female who be fulfilled the inclusion criteria of study

Sample: it was estimated 66 totals for each group, 33 samples were for experimental group and 33 samples were control group. Sample size be calculated on the basis of **$N = 2(\sigma/\Delta)\ 2 * Z\ \alpha + Z\ \beta\text{-}1$** formula.

Sampling technique: Non-probability convenient sampling technique

Inclusive criteria: An infertile woman

- Who is in age group 18-35 years
- Who had diagnosed with primary infertility.
- Who is agreeable to contribute in the study.
- Who can capable to read and write down English or Gujarati.

Exclusive criteria: An infertile woman

- Who is having any mental/psychological disturbance.
- Who is having any medical or surgical condition with infertility.
- Who is having secondary infertility.

Tool was used for research study: To get the baseline data socio-demographic variable structured questionnaire was used. To analyze the stress level researchers had used perceived stress scale-10 and to analyze the QOL (Quality of life) FertiQol scale used.

Procedure for data collection: Ethical approval was obtained by IEC-HR, CHARUSAT. For the data collection method first the Researcher had introduce herself to the participants and inform consent was taken after explaining the purpose of study. Evaluation of effectiveness of Guided imagery therapy on stress and Quality of life among infertile women, first the investigator has assess the stress level in infertile women by using perceived stress scale tool and QOL of infertile females assess by FertiQol scale in both experimental (33) and control group (33). For experimental group the investigator has administered the Guided imagery therapy. The intervention is recorded audio tract for 15 minutes was given to infertile women. Participants had listened the infertile specific guided imagery recording once in a day for 7 consecutive days. In control group, the guided imagery therapy was not being given. In experimental group the investigator has assess the stress level by using the PSM-10 scale & assess the Quality of life by using FertiQol scale after the last intervention. In control group, the stress level & Quality of life was assessed by using the same tool without administering the Guided imagery therapy. If after the intervention stress level still persist then investigator will be referred the participants to counselor.

Result and Discussion

Table 1: Findings related to socio-demographic variable of infertile women of both experimental and control group.

Sr. no	Demographic Variable	Experimental group N=33		Control group N=33	
		Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
1.	Age				
	20-25 years	3	9.1	9	27.3
	26-30 years	21	63.6	14	42.4
	31-35 years	9	27.3	10	30.3
	36-40 years	0	0.0	0	0.0
2.	Height				
	<140 cm	0	0.0	5	15.2
	141cm -150 cm	24	72.7	20	60.6
	151cm-160 cm	9	27.3	8	24.2
	> 161 cm	0	0.0	0	0.0
3.	Weight				
	35kg-50kg	6	18.2	4	12.1
	51 kg-60 kg	17	51.5	20	60.6
	61 kg-70kg	10	30.3	8	24.2
	71kg-80 kg	0	0.0	1	3.0
	≥81 kg	0	0.0	0	0.0
4.	Type of diet				
	Vegetarian	27	81.8	26	78.8
	Non vegetarian/Mixed	6	18.2	7	21.2
5.	Education status				
	No formal education	0	0.0	0	0.0
	Primary education	12	36.4	9	27.3
	Secondary and/or higher secondary education	17	51.5	23	69.7
	Graduation and/or above	4	12.1	1	3.0
6.	Age at marriage				
	18 years to 22 years	14	42.4	26	78.8

Cont... **Table 1: Findings related to socio-demographic variable of infertile women of both experimental and control group.**

	23 years to 27 years	19	57.6	7	21.2
	28 years to 32 years	0	0.0	0	0.0
	>32 years	0	0.0	0	0.0
7.	Age at menarche				
	12 years to 15 years	33	100.0	33	100.0
	16 years to 19 years	0	0.0	0	0.0
	Above 19 years	0	0.0	0	0.0
8.	Duration of marriage				
	1-5 years	25	75.8	30	90.9
	6-10 years	6	18.2	1	3.0
	>10 years	2	6.1	2	6.1
9.	Living pattern				
	Living together	5	15.1	15	45.5
	Temporary away from each other Due to occupation	28	84.9	18	54.5
10.	Type of family				
	Nuclear family	13	39.4	8	24.2
	Joint family	20	60.6	25	75.8
11.	Social support system				
	Available	24	72.7	25	75.8
	Not Available	9	27.3	8	24.2
12.	Occupation				
	Housewife	20	60.6	15	45.5
	Related to medical profession	6	18.2	8	24.2
	Related to Non medical profession	7	21.2	10	30.3
13.	Monthly family income				
	Up to Rs 5000	0	0.0	0	0.0
	Rs 5001-Rs 15000	8	24.2	6	18.2
	Rs 15001-Rs 25000	19	57.6	17	51.5
	Rs >25000	6	18.2	10	30.3
14.	Place of residence				
	Rural area	3	9.1	6	18.2

Cont... **Table 1: Findings related to socio-demographic variable of infertile women of both experimental and control group.**

	Urban area	30	90.9	27	81.8
15.	A duration of diagnosed infertility[years]				
	<3	28	84.8	29	87.9
	3-5	5	15.2	4	12.1
	>5	0	0.0	0	0.0
16.	Use of contraception				
	Yes	1	3.0	0	0.0
	No	32	97.0	33	100.0
17.	Received infertility treatment				
	Semen insemination(IUI)	0	0.0	0	0.0
	Stimulate ovulation & IUI	4	12.1	8	24.2
	In vitro fertilization(IVF)	1	3.0	4	12.1
	Hormonal therapy	28	84.8	21	63.6
18.	Treatment duration [years]				
	1	33	100.0	33	100.0
	2	0	0.0	0	0.0
	>3	0	0.0	0	0.0
19.	Causes of infertility				
	Female factor	33	100.0	33	100.0
	Male factor	0	0.0	0	0.0
	Reason not given	0	0.0	0	0.0
	Cause of male & female factor	0	0.0	0	0.0
20.	Body mass index(BMI)(kg/m2)				
	Low weight (below 18.5)	0	0.0	0	0.0
	Normal(18.5-24.9)	13	39.4	11	33.3
	Overweight(25.0-29.9)	19	57.6	19	57.6
	Obese (30.0-above)	1	3.0	3	9.1

As per the Table 1 Findings regarding age were Majority of the infertile women 21(63.6%) were from the 26-30 years of age group in the Ex. group andIn the control group greater part of female were from 26 to 30 years of age group which is 14(42.4%) of age group.Most participants in experimental 27(81.8) and control group 26(78.8) are vegetarian.Majority of participants in both the group have occupation related to Housewife 20(60.6%) in experimental group & 15(45.5%) in control group. In both the group causes of infertility is female factor.

The study finding supported by study conducted by Jones A, Karla K, et al. (2017) regarding age were belongs to 26-30 years in experimental group 21(63.6%) and control group 19 (63%). Regarding type of diet, experimental group 27(81.8%) and control group 13(39.4%) were non-vegetarian. About occupation majority in group 20 (67%) and control group 20 (67%) were housewife. Majority of experimental group 20 (67%) and control group 20(67%) has causes of infertility is female factor.[11]

Table 2 Effectiveness of guided imagery therapy on level of stress in experimental and control group

N=33

Group		Mean	Std Deviation	t-test	P value
Experimental	Stress level before intervention	29.84	2.92	25.934	<0.001
	Stress level after intervention	13.33	2.74		
Control	Stress level at Day-1	29.30	2.13	1.294	0.205
	Stress levelat Day-7	29.70	2.74		

As per Table 2 findings related to effect of GI therapy on stress intensity there was statistically significant difference found in experimental Group Pre test mean score is 29.84 which reduced to become 13.33 on 7th day after intervention. In control group mean score on 1st day is 29.3 which are not reduced but it is increased to become 29.7 on 7th day. In experimental group p test was 25.934 with p value was <0.001 while in control group it was 1.294 with p value was 0.205.

This findings are predictable with Porat-katz a, paltlel O, Kahane A, et al. (2016) there is a noteworthy decrease of anxiety after the guided symbolism intercession in exploratory gathering the post test feeling of anxiety (M=164.30, SD=19.03) was not exactly the pretest feeling of anxiety (M=247.51, SD= 23.14) and the thing that matters was measurably critical at p< 0.001 level, in charge gathering, there was no factual contrast between the pretest (M= 246.65, SD=22.18) and posttest (M=247.06, SD=21.89) feelings of anxiety.[12]

This is also supported by study done by Dr. Rabin B (2019)the mean score in experimental group was 1.73+0.81 and the mean score in control group 3.13+2.16, The 't' value was 3.41 which is significant at P<0.05 level. Thus it becomes evident that GI was effective in lessening the stress level in experimental group.[13]

Hence $1H_{0:}$ There is no statistically significant effect of GI therapy on reduction of stress level of infertile female at 0.05 level of significant was rejected.

Table 3 Effectiveness of guided imagery therapy on quality of life among infertile women in experimental and control group N=33

Group		Mean	Std Deviation	t-test	P value
Experimental	QoL score before intervention	32.96	8.57	26.926	<0.001
	QoL score after intervention	85.00	6.25		
Control	QoL score at Day-1	22.63	4.96	1.67	0.105
	QoL score at Day-7	22.18	5.51		

As per Table 3 findings related to effect of GI on QoL there was statistically considerable variation found in experimental group pre test mean score is 32.96 which increased to become 85.00 on 7th day after intervention. In control group mean score is 22.63 which decreased minor 22.18. In experimental group p test was 26.926 with p value was <0.001 while in control group it was 1.67 with p value was 0.105.

A Study finding also supported study conducted by RahmaniFard T, Kalantarkousheh M, et al. (2016) Pre-test mean and SD of control group was 67.9 and 5.9617 and in study group was 68.4 and 6.688. In post test it's observed that mean and standard deviation of study group QoL level was found to be enhanced distinctly in 3 months, mean and standard deviation was 97.43 and 7.7446. Post test t value 16.5108 was originate to be considerable at $p<0.05$ intensity. Studies outcomes suggest the guided imagery program significantly improved quality of life of infertile women.[14]

Hence $2H_{0:}$ There is no statistically significant effect of GI therapy on QoL of infertile women at 0.05 point of significant was rejected.

Fisher's chi square test was used to find out the association between pre-intervention levels of infertility related stress & QOL among infertile female of both experimental & control group with selected socio-demographical variable. The all p value is more than 0.05 level of considerable, which suggest that there was no association found with selected socio-demographic variable with 7th day of stress level & quality of life score.

Conclusion

The present study was conducted that guided imagery technique is effective in reducing stress level and improves quality of life. So similar study can be performing on larger scale & also the intervention days can increase to make it generalized. If after the intervention stress level still persist then investigator will be referred the participants to counselor.

Ethical Clearance: Ethical consideration was taken from Institutional ethics Committee- IEC

CHARUSAT, Charotar University of Science and Technology, Changa

Sources of Funding: Self

Conflict of Interest: Nil

References

1. Organization, H. W. sexual and reproduction health 2019; Available from:http://www.who.int/reproductivehealth/topics/infertility/definitions/en/
2. Lal N. India's Hidden Infertility Struggles.

The diplomat.2018; Available from: https://thediplomat.com/2018/05/indias-hidden-infertility-struggles/

3. Hajela S, Prasad S, kumaran A. and kumar Y. Stress and infertility: A review. International Jouneral of Reproduction.2016;vol5:940-943. doi:10.18203/2320-1770.ijrcog20160846. Available from:https://www.researchgate.net/publication/299593808_Stress_and_infertility_A_review
4. India's Infertility Problem: 1 in 10 Indian Couples Battle Infertility.2014; Available form: https://fit.thequint.com/fit/letstalkfertility-1-in-10-indian-couples-battle-infertility
5. Valiani M, Abediyant S, Mehndi S and Pahlavanzadeh S. The effect of relaxation techniques to ease the stress in infertile women. Iranian Journal of Nursing and Midwifery Research. **2010; 15(4):259-264. Available from:**https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3203287/Domar A. Relaxation and Stress Management. 2019; Available from:https://resolve.org/infertility-101/optimizing-my-fertility/relaxation-and-stress-management/
6. Jallo N, Ruiz J, Elswick and French E. Guided Imagery for Stress and Symptom Management in Pregnant African American Women. Journal of Evidence based Complementary and Alternative medicine. 2014; 8(2). Doi: 10.1155/2014/840923. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3955623/
7. Jones A. T, Jones A. B, Karla K and Ausderau. Guided Imagery and Stress in Pregnant Adolescents. American journal of occupation therapy. 2016; 70(5): 1-5. Available from: https://pdfs.semanticscholar.org/be48/844fab1ac1ead18ba8888ca643dfe0f61c8e.pdf
8. Case K, Jackson P, kinkel R and mills P. Guided Imagery Improves Mood, Fatigue, and Quality of Life in Individuals with Multiple Sclerosis: An Exploratory Efficacy Trial of Healing Light Guided Imagery. Journal of Evidence Based Integrative Medicine. 2018; 23:1-8.Doi: full/10.1177/2515690X17748744. Available from: https://journals.sagepub.com/doi/full/10.1177/2515690X17748744
9. Monga M, Alexandrescu B, Theodor G. Impact of infertility on quality of life, marital adjustment, and sexual function. Published by Elsevier. 2004; 63(1): 125-130. Available from: https://www.ncbi.nlm.nih.gov/pubmed/14751363
10. Direkvand-Moghdam A and Delpisheh A. Quality of Life among Iranian Infertile Women in Postmenopausal Period: A Cross-sectional Study. Journal of Menopausal Medicine.2016; 22(2):108-113. Available from: https://www.e-jmm.org/Synapse/Data/PDFData/3165JMM/jmm-22-108.pdf
11. Jones A. T, Jones A. B, Karla K and Ausderau. Guided Imagery and Stress in Pregnant Adolescents. American journal of occupation therapy. 2016; 70(5): 1-5. Available from: https://pdfs.semanticscholar.org/be48/844fab1ac1ead18ba8888ca643dfe0f61c8e.pdf
12. Porat-katz a, paltlel O, Kahane A, Eldar-Geva T. The effect of using complementary medicine on the infertility-specific quality of life of women undergoing in vitro fertilization. Journal of Gynaecology & Obstetrics. 2016 Nov; 135 (2):163-167. Available from: https://www.ncbi.nlm.nih.gov/pubmed/27578232
13. Dr. Rabin B. Guided Imagery to Relieve Chronic Stress. 2019; Available from: https://www.upmc.com/Services/healthy-lifestyles/chronic-stress/guided-imagery
14. RahmaniFard T, Kalantarkousheh M and Faramarzi M. Effect of mindfulness-based cognitive infertility stress therapy on psychological well-being of women with infertility. Middle East fertility society

journal. 2018; 23(4):476-481. DOI: 10.1016/j.mefs.2018.06.001. Available from: https://www.researchgate.net/publication/326036034_Effect_of_mindfulness-based_cognitive_infertility_stress_therapy_on_psychological_well-being_of_women_with_infertility.