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"A Study to Assess the Level of Nomophobia among Medical Professional in MCH Wing and College of Nursing, Baba Educational Society"

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Research Article

A Study to Assess the Level of Nomophobia among Medical Professional in MCH Wing and College of Nursing, Baba Educational Society

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Abstract

Nomophobia is viewed as a cutting-edge age fear associated with our lives because of the connection among individuals and portable data and correspondence innovations, particularly cell phones. This study looked to add to the nomophobia research by distinguishing and depicting the components of nomophobia and fostering a poll to gauge nomophobia. Mobile phones are a revolution in behavior, connectivity, communication, and real-world situations. In this context, people's expectations for modern technology are increasing. As a result, "anphobia", characterized by the fear of not having a mobile phone, turned into another form of fear. Regular examinations should determine whether cell phone phobia might lead to dangerous, restricted cell phone use and dangers. Mobile phone use has increased in recent years and has been associated with nomophobia (also known as nomophobia). The 20-item Nomophobia Questionnaire (NMP-Q) is a useful tool to assess nomophobia. The advancement of technology, in addition to being a legacy that improves and changes the daily lives of the people who create life, has also become an opportunity for health with the development of terms such as "anphobia", which is seen as a problem of insecurity. With fear. No cell phone makes a personal phone call.

Keyword: Nomophobia, NMP-Q, MCH Wing, Anphobia, Maternal and Child Health Hospital

1. Introduction:

Anophobia is characterized by the fear of not having or being able to use a mobile phone. "Today it is seen as the horror of that moment." It was considered a behavioral error. Mobilephobia is a psychological disorder that is considered a negative age, expressing the fear of not being able to use the mobile phone, causing negative feelings of happiness and causing damage to the brain. This research project aims to determine the relationship between mobile phone use and neo-medical phobia. Nomophobia is the fear of not having a mobile phone; Fear of not having or being dependent on a mobile phone. Wasting

medical professionals' time and money is the sad prospect of cell phones. This time can be used for education and physical education. Mobile phones allow people to perform many daily tasks on a single device. This includes, but is not limited to, making phone calls and texting people, checking and sending emails, planning, surfing the Internet, shopping, communicating with people, and viewing messages. It is used for information, games, entertainment and other things on the Internet. (Park, Kim, Shon and Shim, 2013). Kang and Jung (2014) stated that mobile phones are not only used for communication, information and entertainment purposes because they are versatile and perform many functions. They stated that due to the diversity of smartphones, mobile phones enable people to "meet many needs such as education, personal skills, and security and personal relationships" (Kang and Jung, 2014, p. 377). Although mobile phone movement brings obvious benefits and enables people to meet their basic needs (Kang and Jung, 2014), it can also cause some problems with PDA use. Previous studies have shown that mobile phones can cause visual impairments in PDAs (Oulasvirta et al., 2012). The constant use of mobile phones has made mobile phone slavery a common concern today. Nomophobia is seen as a problem in today's computerized and virtual societies. In general, it is the fear of being away from innovations. Mobile devices enable the use of more web-based multifunctional applications ("Apps") than traditional PC-based web applications. Mobile phone addiction is considered a creative compulsion resulting from human-machine connection as well as an addictive behavior. Nomophobia is seen as the fear and danger of using mobile phones among young people. The term is used to describe the fear, depression, anxiety and pain that people can feel without a mobile phone due to fear of accessing their creations. Different ways people can spread include spending most of their energy on using their phone (34 times a day under normal circumstances), constantly using their phone, sleeping with their phone on while sleeping, looking at the screen to check calls, and responding to messages, a lost or misplaced phone due to non-payment or I am unhappy or concerned that a signature was not provided. This is a recent frustration among mobile phone users. Mobile phone use has a huge impact on both our real and mental health. The main side effects of nomophobia include the misuse of the mobile phone and the effects of interference in the absence of cooperation, low battery or poor coordination. Moreover, people with nomophobia often check messages on their phones or miss calls and are repeatedly tricked by ringtones or vibrations.

Many side effects resulting from mobile phone use will negatively affect people's activities, work efficiency and academic success. In order to evaluate the status of phobias affecting mobile phone users, you can use the No Mobile Phobia Survey (NMP-Q), which Yildirim Correia previously conducted in English in the United States, as a tool.

2. Purpose
1. Evaluation of the nomophobia level of doctors of Gynecology and Child Health Hospital and Nursing School Father Education Community.

2. To find the relationship between the level of nomophobia and select different populations.

Hypothesis
H0: There is no relationship between the level of nomophobia and the choice of different demographic characteristics.
H1: There is a significant relationship between the level of nomophobia and the selection of different demographic groups.

3. Limitations of the Study
All research is incomplete and will undoubtedly have some issues due to the researcher's assets, these are called limitations of the study. Below is the current analysis- The current analysis is limited to a random sample of 40 doctors from Lucknow UP, Therefore, the results obtained may differ if other national conditions are included in the sample. This is because the integration of experts with other countries is not possible due to limited resources and capabilities. This review is currently limited to medical professionals. Reviews are limited to what is possible. However, due to limited time, resources, and observers' ability, other factors will also be included, and only nomophobia-related factors are currently kept in mind for analysis.

Research Population
According to Polit, "Population is the entire sampling process. It is the final product." The population of this study includes: The population of this study includes doctors from MCH department and Bhabha Educational Society, Institute of Nursing and Paramedical College, Lucknow, Uttar Pradesh. However, as the researcher could not conduct the study on the entire population, the population included in this study is 40 doctors from MCH Wing and Baba Education Society, Faculty of Nursing, College of Nursing, Lucknow, Uttar Pradesh.

Sample
The sample is a population group selected by researchers of MCH Department and Baba Educational Society Institute of Paramedical Sciences, College of Nursing, Lucknow, Uttar Pradesh, who decided to participate in this study. The study used a sample of 40 doctors. The standard for assessing the level of mobile phone phobia of doctors meets the criteria contained in Lucknow Regional Maternal and Child Health Hospital and College of Nursing Bhabha Educational Community. 40 doctors were selected by random sampling method.

4. Background of the Study
This study was conducted at Maternal and Child Health Hospital and Baba Education Society, Faculty of Nursing, School of Nursing, Lucknow, Uttar Pradesh.

Sampling Technique
With random sampling technique, a total of 40 doctors were selected from Maternal and Child Health Hospital and Father Education Association, College of Nursing, College of Nursing, Lucknow, Lucknow, Uttar Pradesh.

Variables

Variables selected or controlled by the researcher to determine their relationship to the research study. Variables are things whose names change.

Demographic Variables

Demographic variables are used to describe the characteristics of a sample from a population. Demographic variables in these studies include age, religion, parental education, parental education, family income, socioeconomic status, geographic location, and location of information.

Data Collection -

Data was collected through the Nomophobia Questionnaire (NMP- Q) scheme. First, get clearance from a professional organization faster than the actual test series. The validity and reliability of the instrument was assessed by teachers, educational administrators and tutors working at Bhabha Educational Society, Nursing and Paramedical College Foundation, Lucknow. Using segmentation factors, the distribution of the data as of July 14, 2022 was determined. 40 samples were then selected to measure the degree of homophobia using normal testing methods. The Nophobia Survey section consists of 20 items created in the first qualitative stage. Each of the 20 items on the NMP-Q is evaluated using a 7-point Likert scale, where 1 means "strongly disagree," 7 means "strongly disagree," and "agree" is only within the limit to calculate the total score. By summing the responses to each item, the No-Phobia score varies between 20 and 140. NMP-

Q scores, where the higher the score, the more No-Phobia, are defined as follows: NMP-Q scores of 20 indicate the absence of phobia; NMP -Q scores above 20 and below 60 are associated with mild phobia; It is associated with moderate phobia. In contrast, NMP-Q scores greater than or equal to 60 and less than 100; NMP-Q scores greater than or equal to 100 correspond to termination of no cell phone phobia.

5. Result and Discussion

Results are the discoveries or results that settle the exploration question raised by the specialist toward the start of the study. This section presents the investigation and translation of the information gathered to decide on an unmistakable plan to survey the degree of nomophobia of clinical experts of the MCH wing and the Baba Instructive Society Foundation of the Paramedical School of Nursing, Lucknow, by utilizing the Nomophobia Poll scale. Examination is the most common way of putting together and orchestrating the information so that exploration questions can be responded to, and speculations can be tried. The reason for the investigation is to distil the information into an understandable and interpretative structure with the goal that the connection between exploration issues can be considered and tried. The investigation and understanding of the information gathered from 40 clinical experts were done considering the goals and speculations of the review, utilizing enlightening and inferential measurements. The essential goal shows that degree of Nomophobia in Clinical experts in this there are 0% individuals is having Absence of Nomophobia and 6%

individuals having gentle degree of Nomophobia and 19% individuals is having Moderate degree of Nomophobia and 15% individuals is having extreme degree of Nomophobia. What's more, in this study, H1 is acknowledged since there is no critical connection between the degree of nomophobia and the chosen segment factors. There is no critical connection between level of nomophobia and chosen segment factors of clinical experts like age, religion, mother instruction, father training, financial circumstances, living region, and past information on nomophobia. There is a huge connection between the level of nomophobia and chosen segment factors of clinical experts, like family pay.

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A Comparative Study on "Mother's Beliefs towards Preference of Institutional Delivery in Urban and Rural Area of Baran District, Rajasthan

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Abstract

Introduction: Overall development of a country is incomplete without women who constitute nearly half of the human resource potential available. If proper care is not taken during this childbearing process, then it affects the overall health especially the reproductive health of the woman as well as the health and well being of the newborn child. In real sense, the place of delivery is an important aspect of reproductive health care provided to the mother and the quality of care received by the mother and the newborn baby depends upon the place of delivery.

Materials & Methods: Conceptual framework of the study is based on Health Belief Model Developed by Becker's (1984). It include individual perception, modifying factors and likelihood action (IML) based on the problem statement and objective of the study. A Sample of 60 mother's in both Urban and Rural areas of Baran District, Rajasthan selected by purposive sampling technique. Data were collected semi-structured questionnaire. Data were analyzed using comparative and inferential statistics and representation in graph and tables.

Results: In the present study the mean of positive belief of both urban and Rural mother's are 39.17 and 34.8. Standard Deviation is 7.74 for urban mother's and 8.187 for rural mother's, coefficient variation is 0.1976 for urban mother's and 0.2350 for rural mother's, and Z test value is 3.013 and there P value is is 0.9992, we can say that it is highly significant. This reject the null Hypothesis The value of correlation is 0.9874 which lies between 0 and +1, therefore the null hypothesis get rejected.

Conclusion: Mother's had high negative belief score about institutional delivery in rural area., mother's have high positive belief about institutional delivery, have moderate positive belief and have mild positive belief and mother had mild negative belief in urban area, marks had moderate negative belief score and had high negative belief score about institutional delivery in urban area.

Keywords: Comparative study; beliefs; purposive sampling technique

Introduction

Mothers Reflect God's loving presence on earth."——William R.Webb

Motherhood is such a blessing in woman's life, that a loving mother, she forgets her own self for the tender love of her dear one sand trains her children to virtue. The bond between a mother and her child is a powerful component in a child's life. Motherhood is a wonderful time experienced by a woman beginning with pregnancy. Motherhood continues throughout the child"s life and never ends. But mothers who die during child birth or before the birth of a baby leave behind their never ending stories, their children and families and numerous reasons as to why their lives ended so early.

Pregnancy is a physiological process but also a period of potential risk leading to complications during labor, delivery, and post natal period. The provision of care for women during pregnancy and childbirth is essential to ensure a healthy and successful outcome of pregnancy for them other and her newborn. Maternal mortality is a global burden, lots of women dying due to pregnancy and childbirth-related complications. Birth-preparedness and complication readiness is a comprehensive strategy to improve the use of skilled providers at birth, the key intervention to decrease maternal mortality.

Institutional delivery means giving birth to a child in a medical institution under the overall supervision of trained and competent health personnel where there are more amenities available to handle the situation and save the life of the mother and child. If the child is born at home, then chances of getting infected from unhygienic environment are more and it is very tough and sometimes impossible to handle child birth complications. In India, it is a prevalent practice to deliver the child at home instead of taking the pregnant women to some health facility. This is more common in rural areas as compared to urban areas. Institutional births result in reduced infant and maternal mortality and increased overall health status of the mother and the child.

Reduction in maternal and child mortality has been a top priority in India, especially in light of the commitment on the part of the national government to the reach the Millennium Development Goals. A major reason for this high MMR is home delivery of pregnant mothers, often by unskilled traditional birth attendants (TBAs),relatives or neighbors. It is needless to mention that institutional delivery is an essential measure for preventing maternal death, which is still underutilized by Indian women. Recent analysis of third National Family Health Survey (2005/6) shows13% of the women in the lowest wealth quintile accessing institutional delivery care compared with 84% in the highest.

The importance to proximity to health services as a factor affecting utilization has also been stressed. Institutional births result in reduced infant and maternal mortality and increased overall health status of the mother and the child.

Many programme in India like the Child Survival and Safe Motherhood (CSSM) and the Reproductive and Child Health (RCH) programme are focused on this aspect. Under these programme, encouraging deliveries in proper hygienic conditions only by trained health staff and to provide better health care to the mothers and children are emphasized.Our government's commitment in this direction is reflected in the goals of the National Population Policy(NPP),National Health Policy (NHP),and the National Rural Health Mission(NRHM)launched by the Honourable PrimeMinister of India on 12 April 2005. The NRHM has a safe motherhood intervention programme (Janani Suraksha Yojana- JSY). The objective of JSY is to reduce Maternal Mortality Rate(MMR) and Neo-natal Mortality Rate(NMR) through the promotion of institutional deliveries.

Objectives

01. To observe the mother's beliefs towards the preference of institutional delivery in urban areas.
02. To observe the mother's beliefs towards the preference of institutional delivery in rural areas.
03. To compare the mother's beliefs towards preference of institutional delivery in urban and rural areas.
04. To observe the co-relation between the mother's belief between urban and rural areas.

Hypothesis:

➢ H_0 There is no correlation between belief score of rural and urban mothers towards the preference of institutional delivery.

➢ H_1 There is significant association between demographic variable and beliefs of mother's residing in rural area towards the preference of institutional delivery.

➢ H_2 There is significant association between demographic variable and beliefs of mother's residing in urban area towards the preference of institutional delivery.

➢ H_3 There will be a significant co-relation between belief score of rural and urban mothers towards preference of institutional delivery.

Materials & Methods

Research approach: A phenomenological approach was found to suit best.

Research design: The research design selected for the present study is qualitative research design.

Methods of data Collection: Semi– structured interview schedule.

Sample and sample size: Considering the data saturation and time available for the data collection, it was decided to include 60subjects in the study in both urban and rural area. This sample size was considered adequate for the matic analysis & to make valid generalizations.

Sampling techniques: Purposive sampling technique was adopted for selection of subjects for the study.

Setting for the study: Selected for the study are the rural and urban areas of district Baran. The rural area is village Siswali and the urban area is Anta of district Baran.

Population: Selected for present study was all mother's who had given birth in the past year.

Results

The aim of this study was to compare the Beliefs of rural and urban Mother's towards the preference of Institutional Delivery.

• **The First objective was to assess the mother's beliefs towards the preference of Institutional Delivery in urban areas.**

Statistical Analysis of Urban Mother's showed those 35.00% Scored Moderate beliefs, 48.33% Scored High belief regarding preference of institutional delivery and 16.67% Scored Mild belief, 33.33% Scored Mild belief, 63.33% Scored Moderate belief and 3.33% Scored High belief regarding ignorance of institutional delivery.

- **Second objective was to assess the mother's belief towards the preference of Institutional Delivery in rural areas.**

  Statistical Analysis of Rural mother's showed that 41.67% Scored Moderate belief, 26.67% Scored High belief and 31.67% Scored Mild belief regarding preference of the institutional delivery and 20.00% Scored Mild belief, 68.33% Scored Moderate belief and 11.67% Scored High belief regarding ignorance of institutional delivery.

- **The Third objective was to compare the mother's belief towards the preference of Institutional Delivery in urban and rural areas.**

  Statistical Analysis showed that mean preference of institutional delivery belief score (34.8) of rural mother's are less then Mean preference of the institutional delivery belief score (39.17) of urban mother's towards the preference of Institutional Delivery with the preference of Institutional Delivery beliefs Standard Deviation 8.187 (Rural Mother's), 7.74 (Urban Mother's). Z value of preference of Institutional Delivery beliefs 3.013. Mean towards the ignorance the institutional delivery belief score (19.22) of rural mother's are grater then Mean towards the ignorance the institutional delivery belief score (14.72) of urban mother's towards the ignorance the institutional delivery with the towards the ignorance the institutional delivery beliefs Standard Deviation 8.17 (Rural Mother's), 7.64 (Urban Mother's). Z value of towards the ignorance the institutional delivery beliefs 3.125 indicate that calculated Z value is more than tabulated Z value so null hypothesis rejected and alternative hypothesis accepted that, there is difference between beliefs of Rural Mother's and Urban Mother's towards preference and ignorance of Institutional Delivery. P= value (0.9992), indicates that this difference extremely statistically significant.

- **The Fourth objective was to observe the Co-relation between the mother's belief between urban and rural areas.**

  Statistical Analysis showed that there is partial preference of institutional delivery co-relation of mother's preference of institutional delivery belief between urban and rural mother's with preference of institutional delivery Mean 39.8 (Rural Mother's), 39.17 (Urban Mother's) and preference of institutional delivery Standard Deviation 8.187 (Rural Mother's), 7.74 (Urban Mother's).

  Statistical Analysis of partial preference of institutional delivery co-relation of mother's preference of institutional delivery belief between urban and rural mother's was 0.9874 and preference of institutional delivery Co-efficient variation of Rural Mother's 0.2350 and Co-efficient variation of Urban Mother's 0.1976.

  There is partial co-relation of mother's towards the ignorance the institutional delivery belief between urban and rural mother's with towards the ignorance the institutional delivery Mean 19.22 (Rural Mother's), 14.72 (Urban Mother's) and towards the ignorance the institutional delivery Standard Deviation 8.17 (Rural Mother's), 7.64 (Urban Mother's).

  Statistical Analysis of partial Positive co-relation of mother's negative belief between urban and rural mother's was 0.9720 and towards the ignorance the institutional delivery Co-efficient variation of Rural Mother's 0.4250 and Co-efficient variation of Urban Mother's 0.5910.

Major findings of the study

Section-I

A:- Analysis of rural mother's demographic characteristics

- 46.67% of the mother's belongs to age group 26-32 years, 31.67% belongs to 18-25 years age group and 21.67% belongs to 21.67% age group.
- 88.33% were married, 6.67% were divorced and 21.67% were above 32 years.
- 8.33% were illiterate, 40% were primary educated, 8.33% illiterate, 23.33% secondary educated, 28.33% senior secondary educated.
- 50% belonged to rural area.
- 48.33% were Hindus, 50% were Muslims and 1.67% were other religion.
- 3.33% husband were illiterate, 33.33% were primary educated, 13.33% were secondary educated, 25% were senior secondary educated, 25% were graduate.
- 25% were having incomes less than Rs.5ooo/month; 58% belonged to income group of 5000-10,000 and 17% belonged to income group of 10,000-20,000.
- 53.33% had 1-2 pregnancy in her life, 46.67% had 3-5 pregnancy in her life.
- 51.67% mother's delivered her baby at home, 48.33% mother's delivered her baby at hospital.

B. Analysis of urban mother's demographic characteristics

- 28.33% mother's belongs to age group 18-25 year, 41.67% mother's belong to 26-32 year, 30% mother's belongs to age group > 32 year.
- 65% were married, 20% were divorced, 15 % were widow.
- 11.67% were illiterate, 26.67% were primary educated, 28.33% were secondary educated, 33.33% were senior secondary educated.
- 58.33% were Hindu, 15 % were Muslim, 15 % were Christian, 11.67% were Others religion.
- 3.33% husband were illiterate, 10% were primary educated, 23.33% were secondary educated, 25% were senior secondary educated, 38.33% were graduated.
- 36.67% were having income less then Rs.5,000/month, 30% belongs to income group of 5,000-10,000/month, 20% belongs to income group of 10,000-20,000/month and 13.33% belongs to income group of more then 20,000/month.
- 60% had 1-2 pregnancy in her life, 38.33% had 3-5 pregnancy in her life, 1.67% had more then 5 pregnancy in her life.
- 31.67% mother's delivered her baby at home and 68.33% mother's delivered her baby at hospital.

Section II

- 31.67% mother's had mild belief score towards the preference of the institutional delivery in belief related questionnaire in rural area, 41.67% mother's had moderate towards the preference of the institutional delivery belief score and 26.67% mother's had high towards the preference of the institutional delivery belief score;20.00% mother's had mild towards the ignorance of the institutional delivery belief score in belief related questionnaire in rural area, 68.33% mother's had moderate belief score and 26.67% mother's had high belief score towards the ignorance of the institutional delivery.

- 16.67% mother had mild belief in urban area, 35% marks had moderate belief score and 48.33% had high belief score towards the preference of institutional delivery, 33.33% mother had mild belief in urban area, 63.33% marks had moderate belief score and 3.33% had high belief score towards the ignorance of the institutional delivery.

Conclusions

- 46.67% & 41.67% mother's belongs to age group 26-32 years in both urban and rural area.
- 88.33% & 65% of the mother's were married in both area rural and urban.
- 40 % mother's primary educated in rural area and 33.33% mother's sen.secondary level educated in urban area.
- 41.67% mother's have moderate belief about institutional delivery, 31.67% mother's have moderate belief and 26.67% mother's have high belief towards the preference of the institutional delivery and 20.00% mother's had mild belief score in belief related questionnaire in rural area, 68.33% mother's had moderate belief score and 26.67% mother's had high belief score about ignorance of the institutional delivery in rural area.
- 48.33% mother's have high belief about institutional delivery, 35% have moderate belief and 16.67% have mild belief towards the preference of the institutional delivery and 33.33% mother had mild belief in urban area, 63.33% marks had moderate belief score and 3.33% had high belief score about ignorance of institutional delivery in urban area.

Recommendations:

- Similar study can be conducted by using quantitative research design.
- Similar study can be done in hospital settings.
- Similar study can be done on a large scale.
- More and relevant information should be provided through mass media on institutional deliveries.

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Impact of customized awareness program on knowledge regarding millets benefits on health among peoples in selected urban area of Indore, Madhya Pradesh

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Abstract

The present study has been undertaken to assess knowledge score regarding Millets benefits on health among peoples by customized awareness program in Vijay Nagar, Indore. The research design adopted for the study was pre- experimental in nature. The tool for the study was self-structured knowledge questionnaire which consists of two parts-PART- I consisted questions related to Socio-demographic data; PART-II consisted of self –structured knowledge questionnaire to assess the knowledge score regarding Millets benefits on health among peoples. The data was analyzed by using descriptive and inferential statistical methods. The most significant finding was that 30.4% of peoples were having good knowledge regarding Millets benefits on health whereas 69.6% had excellent knowledge after post-test. It was suggested that the nurses must educate peoples regarding Millets benefits on health.

Keywords: Effectiveness, customized awareness program, knowledge and millets benefits on health

Introduction

Millet is one of the oldest cultivated grains in the world and has been grown throughout Africa and Southeast Asia for thousands of years. Millet can be used to make bread, beer, cereal, and other dishes. Even today, millet is a staple food around the world. In fact, millet is gaining renewed popularity because of how versatile and easy to grow it is. You can find millet in pearl, finger, proso, and sorghum varieties throughout the U.S. While these types of millet may look slightly different, they all provide similar health benefits.

Millet is rich in niacin, which helps your body manage more than 400 enzyme reactions. Niacin is also important for healthy skin and organ function. In fact, it's such an important compound that it's often added to processed foods to enrich them. Millet, especially the darker varieties, is also an excellent source of beta-carotene. This natural pigment acts as both an antioxidant and as a precursor to vitamin A, helping your body fight off free radicals and supporting the health of your eyes. Millet is available in many supermarkets and health food stores in several different forms. It's common to see millet sold dried, puffed like rice, or ground like wheat flour. Dried millet can be cooked like couscous or quinoa. Ground millet makes a great substitute for, or addition to, whole wheat flour in baked goods. Puffed millet can be eaten as a snack or used as a substitute for puffed rice.

Objective of the study

1. To assess the pre-test and post-test Knowledge score regarding Millets benefits on health among peoples.
2. To assess the effectiveness of customized awareness program on knowledge regarding Millets benefits on health among peoples.
3. To find out the association between the pre-test knowledge score regarding Millets benefits on health among peoples with their selected demographic variables.

Hypotheses

RH₀: There will be no significant difference between pretest and post-test knowledge score on Millets benefits on health among peoples.

RH₁: There will be significant difference between pretest and post-test knowledge score on Millets benefits on health among peoples.

RH₂: There will be significant association between the pre-test score on Millets benefits on health among peoples with their selected demographic variables.

Assumption

1. Peoples may have deficit knowledge regarding Millets benefits on health.
2. Customized awareness program will improve knowledge of peoples regarding Millets benefits on health.

Methodology

An evaluative approach was used and research design pre experimental one group pre-test post-test research design was used for the study. The samples consisted of 46 peoples of preterm selected by Non probability purposive sampling technique. The setting for the study was Selected urban area, Indore. Data was collected with the help of demographic variables and administering a self-structured knowledge questionnaire by the investigator before and after customized awareness program. Post-test was collected after 7 days of pretest. Data analysis using descriptive & inferential statistics.

Analysis and Interpretation
Section-1

Table 1: Frequency and percentage distribution of samples according to their demographic variables. n = 46

S. No	Demographic Variables	Frequency	Percentage
1	**Age in Years**		
a.	10-11	14	30.4
b.	12-13	20	43.5
c.	More than equal to 14	1	26.1
2	**Gender**		
a.	Male	21	45.5
b.	Female	25	54.5
c.	Transgender	0	0.0
3	**Education**		
a.	Primary	23	50.0
b.	Secondary	18	39.1
c.	Higher secondary	5	10.9
4	**Religion**		
a.	Hindu	18	39.1
b.	Muslim	14	30.4
c.	Sikh	8	17.4
d.	Christian	5	10.9
e.	Others	1	2.2

Section-2

Table 2.1: Frequency and percentage distribution of Pre-test scores of studied subjects:

Category and test Score	Frequency (N=46)	Frequency Percentage (%)
Poor (01-05)	39	84.8
Average (6-10)	7	15.2
Good (11-15)	0	0.0
Excellent (16-20)	0	0.0
Total	46	100.0

The present table 2.1.1 concerned with the existing knowledge regarding Millets benefits on health among peoples was shown by pre-test score and it is observed that most of the 39 (84.8%) peoples were poor (01-05) knowledge and some 7 (15.2%) peoples have average category (6-10).

Table 2.2: Frequency and percentage distribution of Post test scores of studied subjects:

Category and test Score	Frequency (N=46)	Frequency Percentage (%)
Poor (01-05)	0	0.0
Average (6-10)	0	0.0
Good (11-15)	14	30.4
Excellent (16-20)	32	69.6
Total	46	100.0

The present table 2.2.1 concerned with the existing knowledge regarding Millets benefits on health among peoples was shown by post test score and it is observed that most of the 32 (69.6%) peoples were Excellent (16-20) knowledge and other 14 (30.4%) peoples have category which are Good (11-15) posttest knowledge score in the present study.

Table 2.3: Effectiveness of customized awareness program by calculating Mean, SD, Mean Difference and 't' Value of Pre-test and Post-test knowledge.

Knowledge Score of Peoples	Mean ($\bar{X}$)	S.D. (±)	Std. Error of Mean	D.F.	t-value	Significance
Pre-test	1.15	0.36	0.09	45	-27.17	P<0.0001*
Post-test	3.69	0.42				

When the mean and SD of pre-test and post-test were compared and 't' test was applied. It can be clearly seen that the 't' value was -27.17 and p value was 0.0001 which clearly show that customized awareness program was very effective in increasing the knowledge of peoples.

Section-3
Association of knowledge scores between test and selected demographic variables:

Table- 3.1: Association of age with pre-test score:

Age (in years)	Test scores				Total
	Poor (1-5)	Average (6-10)	Good (11-15)	Excellent (16-20)	
10-11	12	2	0	0	14
12-13	16	4	0	0	20
≥14	11	1	0	0	12
Total	39	7	0	0	46

X=0.80 p>0.05 (Insignificant)

The association of age test scores is shown in present table 3.1. The probability value for Chi-Square test is 0.80 for 2 degrees of freedom which indicated insignificant valve (p>0.05). Hence, it is identified that there is a insignificant association between age and test scores.

Table 3.2: Association of gender with pre-test scores

Gender	Test scores				Total
	Poor (1-5)	Average (6-10)	Good (11-15)	Excellent (16-20)	
Male	17	4	0	0	21
Female	22	3	0	0	25
Transgender	0	0	0	0	0
Total	39	7	0	0	46

X=0.02 p>0.05 (Insignificant)

The association of gender and test scores is shown in present table 3.2. The probability value for Chi-Square test is 0.02 for 1 degrees of freedom which indicated insignificant value (p>0.05). Hence, it is identified that there is a significant association between gender and test scores.

Table- 3.3: Association of education with pre-test score:

Occupation	Test scores				Total
	Poor (1-5)	Average (6-10)	Good (11-15)	Excellent (16-20)	
Primary	20	3	0	0	23
Secondary	17	1	0	0	18
Higher & above	2	3	0	0	5
Total	39	7	0	0	46

X=9.15 p>0.05 (Insignificant)

The association of educational status and test scores is shown in present table 3.3. The probability value for Chi-Square test is 9.15 for 2 degrees of freedom which indicated educational status and test scores. Hence, it is identified that there is a insignificant association between educational status and test scores.

Table- 3.4: Association of Religion regarding Millets benefits on health with pre-test scores

Religion	Test scores				Total
	Poor (1-5)	Average (6-10)	Good (11-15)	Excellent (16-20)	
Hindu	15	3	0	0	18
Muslim	13	1	0	0	14
Sikh	6	2	0	0	8
Christian	5	0	0	0	5
Others	0	1	0	0	1
Total	39	7	0	0	46

$X = 7.79$ $p > 0.05$ (Insignificant)

The association of religion test scores is shown in present table 3.4. The probability value for Chi-Square test is 7.79 for 4 degrees of freedom which indicated religion and test scores. Hence, it is identified that there is insignificant association between religion and test scores.

Results

The result of this study indicates that there was a significant increase in the post-test knowledge scores compared to pre-test scores of Millets benefits on health. The mean percentage knowledge score was observed 1.15 ± 0.36 in the pre-test and after implementation of customized awareness program post-test mean percentage was observed with 3.69 ± 0.42.

Conclusion

Thus after the analysis and interpretation of data we can conclude that the hypothesis RH1 that, there will be significance difference between the pre-test knowledge score with post-test knowledge score at the $(P<0.05)$ is being accepted.

Furthermore, customized awareness program regarding Millets benefits on health among peoples may consider as an effective tool when there is a need in lacking, bridging and modifying the knowledge.

Limitations

- The study was limited to Selected urban area, Indore.
- The study was limited to 46 peoples.

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A Study to Assess the Effectiveness of Structured Teaching Programme on Knowledge Regarding Polycystic Ovarian Disease among Adolescent Girls in Selected School, Jaipur (Rajasthan)

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ABSTRACT

Introduction: What do you mean PCOD? it means Polycystic Ovarian Disease. The ovaries, where a woman's eggs are produced, have tiny fluid-filled sacs called follicles or cysts. As the egg grows, the follicle builds up fluid. When the egg matures, the follicle breaks open, the egg is released, and the egg travels through the fallopian tube to the uterus (womb) for fertilization. This is called ovulation. Polycystic ovarian syndrome is a problem in which a woman's hormones are out of balance. It can cause problems with the menstrual periods and make it difficult to get pregnant. It may also cause unwanted changes in the look. If it is not treated, over time it can lead to serious health problems, such as diabetes and heart disease.

Method: One group pre-test – post-test quasi experiment design is used for the present study. The quasi experimental design helps to determine the effectiveness of structured teaching programme and can able to show the significance difference between pre-test and post-test knowledge score. Simple Random sampling technique (lottery method) was used to select 60 adolescent girls from who are in age group 15 -18 years and met the inclusion criteria for the study.

Results: The overall pre-test and post-test mean were 18.32 and 23.38 with SD of 6.13 and 6.69 respectively and calculated 't' value was 38.36 which is significant at the level of $P < 0.05$. This indicates that, there was significant difference in knowledge regarding PCOD before and after delivering STP on polycystic ovarian disease among adolescent girls.

Conclusion: The chapter dealt with background and need for the study, statement of the problem, objectives, operational definitions, variables, hypotheses, assumptions, delimitations and conceptual frame work of the study.

Key words: *Structured teaching programme; Knowledge; Polycystic ovarian disease*

INTRODUCTION:

"You can tell the condition of a nation by looking

at the status of its women"

- Jawaharlal Nehru

Adolescence is a Latin word derived from the verb "Adolescences" which means to grow into adulthood. Adolescence is a time of moving from the immaturity of childhood to the maturity of adulthood. This is the time for them to prepare for understanding greater responsibilities, a time for exploration and widening horizons and a time to ensure healthy all round development. Adolescence is also a time of behavioral changes when the reproductive capacities get established. The sex hormones secreted during puberty, make physiological changes and also affect the behavior, which is why the emotions of adolescents are not stable.

Gynecological problems of adolescents occupy a special space in the spectrum of gynecological disorders of all ages. This is because of the physical nature of the problems which are so unique, special and specific for the age group, and also because of the associated and psychological factors which are very important in the growth and psychological remodeling of someone in the transition between childhood and womanhood.

Gynecological diseases are fairly common but most of women ignore the symptoms or unaware, till the time the problem really worsens. Nowadays problems faced by young girls, is Polycystic Ovarian Syndrom / Disease (PCOS or PCOD) which is also known as Stein leventhal Syndrome. This is the commonest cause of amenorrhea in young girls. The amenorrhea with polycystic ovaries was first described in 1935 by Stein and Leventhal. PCOS is reported to be a growing problem with adolescent girls.

An ovarian cyst is a fluid-filled sac usually found on the surface of an ovary. There are many types of ovarian cysts, each with a different underlying cause. Many women will have at some point during their childbearing years. Most are completely without symptoms. Polycystic ovarian disease (PCOD) has multiple small cysts in their ovaries (the word poly means many). These cysts occur when the regular changes of a normal menstrual cycle are disrupted. The ovary is enlarged and it produces excessive amounts of androgen and estrogenic hormones. This excess, along with the absence of ovulation, may cause infertility.

PCOD is a heterogeneous collection of signs and symptoms which together, form a spectrum of the disorder with mild presentation in some and severe disturbance of reproduction, endocrine and metabolic function in orders.

Clinical observation teaches that, PCOS often develops during adolescence include excessive hair growth usually from before the onset of menstrual cycles, menarche tends to be delayed. Irregular cycles, although considered a normal phenomenon during the first gynecological years, frequently continues into adulthood. In the earliest signs of excess androgen levels is acne. Later, hirsutism develops and leads to an increase in male hair patterns, such as alopecia.

Adolescence is a period of transition between childhood and adulthood, a time of rapid physical, cognitive, social and emotional maturity as the boy prepares for manhood and the women prepares for womanhood. This period begins with gradual appearance of secondary sexual characteristics at about 11 or 12 years of age and ends with cessation of body growth at 18 to 20 years. Adolescent population in world is 3 billion and in India, the population of adolescent is 225 million (31.7%), male population is 21.7% and female population is 21.8%.

Polycystic ovarian disease or syndrome is a common problem which may start in the adolescence and affect the girls till her old age. Girls of any ethnic background can present with PCOS.

PCOD is a common problem which occurs mostly among teen girls and young girls. In fact, almost 1 out of 10 girls have PCOD. A study findings shows that adolescent girls with PCOD have an increased risk of the metabolic syndrome associated with increasing androgen levels independent of obesity and insulin resistance.

OBJECTIVES

- To assess the level of knowledge regarding polycystic ovarian disease among adolescent girls before the structured teaching programme.
- To assess the level of knowledge regarding polycystic ovarian disease among adolescent girls after the structured teaching programme
- To determine the effectiveness of structured teaching program on polycystic ovarian disease.
- To find out the association between the posttest level of knowledge with the selected demographic variables.

HYPOTHESIS: -

H_1: The mean post-test knowledge score of the adolescent girls on polycystic ovarian disease will be significantly higher than their mean pre-test knowledge score.

H_2: There will be significant association between post test scores of adolescent girls on knowledge regarding polycystic ovarian disease with selected demographic variables.

METHODOLOGY: -

Research design is the overall plan for obtaining answers to the question being studied and for handling some of the difficulties encountered during the research process.

One group pre-test - post-test quasi experiment design is used for the present study. The quasi experimental design helps to determine the effectiveness of structured teaching programme and can able to show the significance difference between pre-test and post-test knowledge score.

Sample and Sample Size

A sample is a subset or portion that has been selected to represent the population of interest. The present study was conducted among 60 adolescent girls who are in age group 15 - 18 years studying in Anslum Senior Secondary School, Jaipur (Rajasthan).

Sampling Technique

Sampling is the process of selecting representative units of a population for the study. Simple Random sampling technique (lottery method) was used to select 60 adolescent girls from who are in age group 15 -18 years and met the inclusion criteria for the study.

Validity and Reliability

The reliability of a research instrument is defined as the extent to which the instrument yields the same result on repeated measures. The language of the tool was found to be clear and all the items in the tool and STP were clearly understood by the subjects without ambiguity. In order to establish

the reliability of the tool, it was administered to six adolescent girls. Reliability was obtained by spearman correlation method. Reliability of the tool was 0.95. Thus the tool was found highly significant and reliable.

RESULTS AND DISCUSSION

"Polycystic ovarian disease is not a life threatening problem, definitely a lifestyle threatening problem"

The present study was conducted to assess the effectiveness of structured teaching programme on knowledge regarding polycystic ovarian disease among adolescent girls.

This chapter discusses the findings of this study.

DESCRIPTION ABOUT DEMOGRAPHIC VARIABLES

The distribution of demographic variables of the adolescent girls.

1. Age in years: The percentage distribution of study subjects by age group, out of 60 subjects 76.7% (46) of the subjects belongs to the age group of 15-16 years and 23.3% (14) in the age group of 17-18 years.

2. Educational status: Percentage distribution of study subjects with reference to educational status showed that 50% (30) of subjects doing 11ᵗʰ standard and 50% (30) of them doing 12ᵗʰ standard.

3. Religion: Distribution of study subjects with reference to religion showed that majority 41.7% (25) of the subjects were Muslim while 28.3% (17) Hindu, 26.7% (16) Christian and the rest 0.3% (2) were others (Sikh).

4. Residence: With reference to residence, percentage distribution of samples showed that out of 60 subjects, majority 78.3% (47) of the samples living in urban and remaining 21.7% (13) from rural areas.

5. Monthly income of the family: With regard to family income it showed that 6.7% (4) are from high class family with income of above Rs.20000, 46.6% (28) were from family income of Rs.10001-15000, 21.7% (13) from family income of Rs.5001-10000, 18.3% (11) from family income of Rs.15000-20000 and the rest 6.7% (4) were from low economic status family with monthly income below Rs.5000.

6. Type of family: Distribution of study subjects according to type of family showed that, out of 60 subjects 23.3% (14) are having joint family, 60% (36) having nuclear family and 16.7% (10) having extended family.

7. Dietary pattern: Distribution of sample according to intake of dietary pattern revealed that out of 60 subjects 58.3% (35) having mixed diet and remaining 41.7% (25) are taking vegetarian dietary.

8. Family history of PCOD: Distribution of study subjects with reference to family history of PCOD is that 96.7% (58) does not have family history of PCOD and 3.3% (2) has the family history of PCOD.

9. Engagement in Physical activity: With regard to physical activity 65% (39) of them has a habit of walking daily, 16.7% (10) are doing aerobics, 11.6% (7) practice yoga and the rest 6.7% (4) of

them were engaging in jogging.

10. Prior knowledge of PCOD: Distribution of study subjects with reference to prior knowledge of PCOD, 96.7% (58) does not have idea and 3.3% (2) were aware of it from relatives.

Objectives of the Study

➢ *To assess the level of knowledge regarding polycystic ovarian disease among adolescent girls before the structured teaching programme.*

The level of knowledge regarding polycystic ovarian disease among adolescent girls during pre-test.

It is clear from the data that 65% (39) had inadequate knowledge, 31.7% (19) had moderately adequate knowledge and remaining 3.3% (2) had adequate knowledge regarding general concept of PCOD. Concern to causes of PCOD, 60% (36) had inadequate knowledge, 18.3% (11) had moderately adequate knowledge and 21.7% (13) had adequate knowledge. Regarding Signs & symptoms and diagnostic methods of PCOD, 73.3% (44) had inadequate knowledge, 23.4% (14) had moderately adequate knowledge and 3.3% (2) had adequate knowledge. Regarding management, prevention and complication of PCOD, 61.7% (37) had inadequate knowledge, 35% (21) had moderately adequate knowledge and 3.3% (2) had adequate knowledge.

➢ *To assess the level of knowledge regarding polycystic ovarian disease among adolescent girls after the structured teaching programme*

The distribution of the level of knowledge regarding polycystic ovarian disease among adolescent girls during post-test.

It is clear from the data that, no one had inadequate knowledge in all aspects of PCOD. Regarding general concept of PCOD 31.7% (19) had moderately adequate knowledge and remaining 68.3% (41) had adequate knowledge. Concern to causes of PCOD, 25% (15) had moderately adequate knowledge and 75% (45) had adequate knowledge. On the topic of signs & symptoms and diagnostic methods of PCOD, 13.3% (8) had moderately adequate knowledge and 86.7% (52) had adequate knowledge. About management, prevention and complication of PCOD, 21.7% (13) had moderately adequate knowledge and 78.3% (47) had adequate knowledge.

➢ *To determine the effectiveness of structured teaching program on polycysticovarian disease.*

The comparison of the level of knowledge between pre-test and post-test among adolescent girls on PCOD.

The total pre-test mean and post-test mean in general concept of PCOD was 5.95 and 7.30 and SD 2.15 and 2.13 respectively and calculated 't' value was 12.75, it was significant at 0.05 level.

With regards to causes of PCOD, pre-test mean and post-test mean was 2.30 and 2.88 and SD was 1.16 and 1.07, calculated 't' value was 7, it was significant at 0.05 level.

Regards to signs & symptoms and diagnostic methods of PCOD, pre and post test mean is 4.35 and 5.32 and SD was 1.61 and 1.62 respectively, where as calculated 't' value was 12.88, it was significant at 0.05 level.

Regarding management, prevention and complication of PCOD, pre and post test mean was 5.73 and 7.80 and SD was 2.13 and 1.87 respectively and calculated 't' value was 14.32, which is significant at the level of 0.05.

The overall pre-test and post-test mean were 18.32 and 23.38 with SD of 6.13 and 6.69 respectively and calculated 'r' value was 38.36 which is significant at the level of $P<0.05$. This indicates that, there was significant difference in knowledge regarding PCOD before and after delivering STP on polycystic ovarian disease among adolescent girls.

➢ **To find out the association between the post test level of knowledge with the selected demographic variables.**

The association between the post-test level of knowledge of adolescent girls regarding PCOD with the selected demographic variables.

Results revealed that, there was a significant association between the level of knowledge with monthly income of family, x^2 value was 11.76. It was significant at $P< 0.05$ level. And there was no significant association between the level of knowledge with age in years, educational status, religion, residence, type of family, dietary pattern, family history of PCOD, engagement in physical activity and exposure of knowledge about polycystic ovarian disease.

The overall findings of the study revealed that, there was a significant association between post test scores of adolescent girls on knowledge regarding polycystic ovarian disease with monthly income of the family and significant difference in level of knowledge after the structured teaching programme regarding polycystic ovarian disease among adolescent girls. Hence the hypotheses (H_1, H_2) stated at the beginning of this study is confirmed.

CONCLUSION

· The findings of this study support the need for conducting an awareness programme regarding polycystic ovarian disease. The study proved that adolescent girls had inadequate knowledge regarding polycystic ovarian disease before structured teaching programme. After executing the structured teaching programme, the adolescent girls have improved the knowledge regarding polycystic ovarian disease. Such structured teaching programme distribution can be carried out in the school to improve the knowledge of adolescent girls regarding polycystic ovarian disease.

RECOMMENDATIONS

· A same kind of study can be conducted for a larger group in order to generalize the findings.

· Further studies should be conducted about attitude of PCOD among adolescent girls.

· An experimental study can be conducted with control group for the effective comparison of the results.

· A longitudinal study can be done using post test after one month, six months and one year to see the retention of knowledge.

· A study can be conducted to evaluate the efficiency of various teaching strategies like self instruction module, pamphlets, leaflets, computer assisted instruction slide shows on PCOD among adolescent girls.

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A Study to Assess the Impacts of Music Therapy on Mental and Physical Health of Adolescents Due to Covid-19 at Selected Higher Secondary School at Jaipur, Rajasthan."

Ramswroop

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ABSTRACT

Introduction: Music therapy generally produces positive results, but it is not recommended as a stand-alone treatment for serious medical and psychiatric issues. While music may help to alleviate some of the symptoms of these conditions, other forms of treatment such as medication, physical therapy, or psychotherapy may also be necessary. This study investigated 60 adolescents to assess the impacts of music therapy on mental and physical health of adolescents due to covid-19.

Method: In view of the problem under study and to accomplish the objectives of the study a quantitative research approach with pre experimental one group pre test post test design was used for this study and the study was conducted in Govt Sr. Sec School, Tonk Phatak, Jaipur. A total of 60 samples of adolescents were selected by using non-probability convenient sampling technique. A structured knowledge questionnaire was prepared to assess the impacts of music therapy on mental and physical health of adolescents due to covid-19.

Results: The result shows before music therapy that 30 (50.0%) students have poor score, 24 (40%) students have good score and 06 (15.0%) have excellent score. The result shows after music therapy that 18 (30.0%) students have poor score, 28 (46.7%) students have good score and 14 (23.3%) have excellent score. Before Administration of Music therapy, 30 (50.0%) students have poor score, 24 (40%) students have good score and 06 (15.0%) have excellent score. After Administration of Music therapy, 18 (30.0%) students have poor score, 28 (46.7%) students have good score and 14 (23.3%) have excellent score.

Conclusion: Before music therapy, students have 16.72 score whereas after music therapy they have 8.30 score, so the difference is 8.42. This difference between before and after music therapy was large and it was statistically significant.

Keywords: *Level; Music Therapy; Mental Health; Physical Health*

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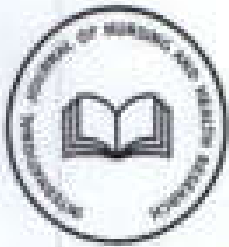+91-9999888671

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A descriptive study among GNM 2nd year students on knowledge regarding transcutaneous electrical nerve stimulation application on pain

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Abstract
The current study has been undertaken to assess the Knowledge score regarding transcutaneous electrical nerve stimulation application on pain among GNM 2nd year students in selected nursing college, Indore. The research design used for study was descriptive in nature. The tool for study was self-structured knowledge questionnaire which consists of 2 parts-PART- I consisted questions related to Socio-demographic data; PART-II consisted of self -structured knowledge questionnaire to assess the knowledge score regarding transcutaneous electrical nerve stimulation application on pain among GNM 2nd year students. The data was analyzed by using descriptive & inferential statistical methods. The most significant finding was that 30.0% subjects have poor knowledge, 50.0% have average knowledge score while 20.0% GNM 2nd year students were having good knowledge score.

Keywords: Transcutaneous electrical nerve stimulation application on pain and GNM 2nd year students

Introduction
Transcutaneous electrical nerve stimulation (TENS) currently is one of the most commonly used forms of electroanalgesia. Hundreds of clinical reports exist concerning the use of TENS for various types of conditions, such as low back pain (LBP), myofascial and arthritic pain, sympathetically mediated pain, bladder incontinence, neurogenic pain, visceral pain, and postsurgical pain. Because many of these studies were uncontrolled, there has been ongoing debate about the degree to which TENS is more effective than placebo in reducing pain.

Transcutaneous electrical nerve stimulation is a commonly used treatment approach to alleviate acute and chronic pain by reducing the sensitization of dorsal horn neurons, elevating levels of gamma-aminobutyric acid and glycine, and inhibiting glial activation. However, many systematic reviews and meta-analyses assessing clinical trials looking at the effectiveness of using TENS to reduce different sources of pain have been inconclusive due to a lack of high quality and unbiased evidence. Potential benefits of TENS treatment include the safety, relative low cost, the ability to self-administer, and availability over the counter without a prescription. In principle, an adequate intensity of stimulation is necessary to achieve pain relief with TENS. An analysis of treatment fidelity (meaning that the delivery of TENS in a trial was in accordance with current clinical advice, such as using "a strong but comfortable sensation" and suitable, frequent treatment durations) showed that higher fidelity trials tended to have a positive outcome.

Objective of the study
1. To assess the knowledge scores regarding transcutaneous electrical nerve stimulation application on pain among GNM 2nd year students.
2. To find out association between knowledge score regarding transcutaneous electrical nerve stimulation application on pain among GNM 2nd year students with their selected demographic variables.

Hypotheses
RH₀: There will be no significant association between knowledge score on transcutaneous electrical nerve stimulation application on pain among GNM 2nd year students with their selected demographic variables.

RH₁: There will be significant association between knowledge score on transcutaneous electrical nerve stimulation application on pain among GNM 2nd year students with their selected demographic variables.

Methodology
A descriptive research design was used to assess the knowledge score regarding transcutaneous electrical nerve stimulation application on pain among GNM 2nd year students residing in selected Nursing college, Indore. The study was carried out on 40 GNM 2nd year students selected by purposive sampling technique. Demographical variable and self-structured 30 knowledge questionnaire were used to assess the Knowledge score regarding transcutaneous electrical nerve stimulation application on pain in children by survey method.

## Analysis and Interpretation
Section-I

Table 1: Frequency & percentage distribution of samples according to their demographic variables. n = 40

S. No	Demographic Variables	Frequency	Percentage
1	Age in Years		
a.	Less than 20	16	40.0
b	Greater than 20	24	60.0
2	Gender		
a.	Male	21	52.5
b	Female	19	47.5
3	Previous knowledge regarding dehydration		
a.	Yes	28	70.0
b	No	12	30.0
4	Sources of information regarding transcutaneous electrical nerve stimulation application on pain		
a.	Internet	1	2.5
b	TV	29	72.5
c	News paper	7	17.5
d	Conference / workshop	3	7.5

Section-II

Table 2: Frequency and percentage distribution of knowledge score of studied subjects.

Category and test Score	Frequency (N=40)	Frequency Percentage (%)
Poor (1-10)	12	30.
Average (11-20)	20	50.0
Good (21-30)	8	20.0
Total	40	100.0

The present table 2 concerned with the existing knowledge regarding transcutaneous electrical nerve stimulation application on pain in children among GNM 2nd year students were shown by knowledge score and it is observed that most of the GNM 2nd year students 12 (30.0%) were poor (01-10) knowledge, 20 (50.0%) were have average (11-20) knowledge score and rest of the GNM 2nd year students have 8 (20.0%) were from good (21-30) category.
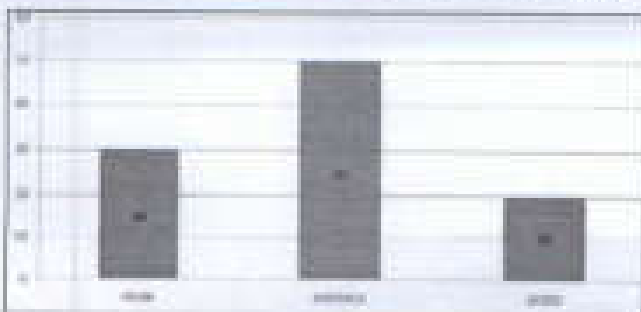
Fig 1: Frequency and percentage distribution of knowledge scores of studied subjects

Table 3: Mean ($\overline{X}$) and standard Deviation (s) of knowledge scores:

Knowledge Pre -test	Mean ($\overline{X}$)	Std Dev (S)
Pre-Knowledge score	14.21	5.58

The information regarding mean, percentage of mean and standard deviation of Knowledge scores in shown in table 2.1.2 knowledge in mean knowledge score was 14.21 ± 5.58 while in knowledge regarding transcutaneous electrical

nerve stimulation application on pain among GNM 2nd year students residing in selected nursing college.

Section-III

Association of knowledge scores between test and selected demographic variables:

Table 4: Association of age of GNM 2nd year students with knowledge scores:

Age (In years)	knowledge score			total
	Poor (1-10)	Average (11-20)	Fair (21-30)	
less than 20	4	8	4	16
greater than 20	8	12	4	24
total	12	20	8	40
$x^2 = 0.55$		p>0.05 (insignificant)		

The association of age & Knowledge scores is shown in present table 4. The probability value for Chi-Square test is 0.55 for 2 DF which indicated insignificant value (p>0.05). Hence, it is identified that there is insignificant association between age & Knowledge scores. Moreover, it is reflected that age isn't influenced with current problem.

Table 5: Association of gender with knowledge scores:

Gender	Knowledge scores			Total
	Poor (1-10)	Average (11-20)	Fair (21-30)	
Male	8	10	3	21
Female	4	10	5	19
Total	12	20	8	40
$X^2 = 1.73$		p>0.05 (insignificant)		

The association of gender & Knowledge scores is shown in present table 5. The probability value for Chi-Square test is 1.73 for 2 df which indicated gender & Knowledge scores. Moreover, it is reflected that gender isn't influenced with current problem.

Table 6: Association of previous knowledge with knowledge scores:

Previous knowledge	Knowledge scores			Total
	Poor (1-10)	Average (11-20)	Fair (21-30)	
Yes	9	13	6	28
No	3	7	2	12
Total	12	20	8	40
$X^2 = 0.47$		p>0.05 (insignificant)		

The association of previous knowledge & Knowledge score is shown in present table 6. The probability value for Chi-Square test is 0.47 for 4 degrees of freedom which indicated previous knowledge and Knowledge scores. Moreover, it is reflected that previous knowledge isn't influenced with present problem.

Table 7: Association of sources of knowledge with knowledge scores:

Sources of knowledge	Knowledge scores			Total
	POOR (1-10)	AVERAGE (11-20)	FAIR (21-30)	
Internet	0	01	0	1
TV	9	12	8	29
News paper	1	6	0	7
Conference/workshop	2	1	0	3
Total	12	20	8	40
$X^2 = $		p>0.05 (insignificant)		

The association of sources of knowledge & Knowledge scores is shown in present table 7. The probability value for Chi-Square test is 8.14 for 6 degrees of freedom which indicated sources of knowledge & Knowledge scores. Moreover, it is reflected that source of knowledge isn't influenced with current problem.

Results

The findings of the study revealed that 30.0% subjects have poor knowledge, 50.0% have average knowledge score while 20.0% GNM 2nd year students were having good knowledge score towards transcutaneous electrical nerve stimulation application on pain in children. The mean knowledge score of subjects was 14.21 ± 5.58. The association of knowledge score of GNM 2nd year students was found to be statistically insignificant with demographic variables (p>0.05).

Conclusion

It was concluded that majority of GNM 2nd year students had average knowledge score regarding transcutaneous electrical nerve stimulation application on pain in children. GNM 2nd year students should also educate regarding transcutaneous electrical nerve stimulation application on pain to control disease.

Limitation

* This was limited to selected Nursing college, Indore.
* This was limited to 40 GNM 2nd year students.

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"Effect of awareness package on knowledge regarding transcutaneous electrical nerve stimulation application on pain among primi gravid women in selected hospital in Indore, Madhya Pradesh"

Authored By:

Manita Acharya, Ph.D Scholar

From

Malwanchal University

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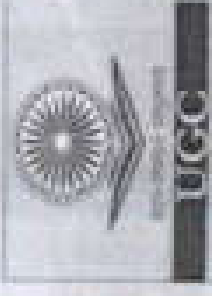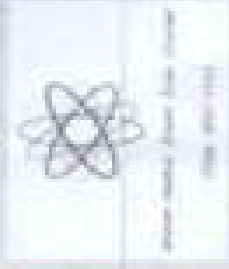
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Abstract

The present study has been undertaken to assess knowledge score regarding transcutaneous electrical nerve stimulation application on pain among primi gravid women by awareness package in Index hospital,Indore. The research design adopted for the study was pre- experimental in nature. The tool for the study was self-structured knowledge questionnaire which consists of two parts-PART- I consisted questions related to Socio-demographic data; PART-II consisted of self - structured knowledge questionnaire to assess the knowledge score regarding transcutaneous electrical nerve stimulation application on pain among primi gravid women. The data was analyzed by using descriptive and inferential statistical methods. The most significant finding was that 22.5% of primi gravid women were having average knowledge regarding transcutaneous electrical nerve stimulation application on pain whereas 77.5% had good knowledge after post-test. It was suggested that the nurses must educate primi gravid women regarding transcutaneous electrical nerve stimulation application on pain.

Keyword- Effect, awareness package, knowledge and transcutaneous electrical nerve stimulation application on pain.

1.INTRODUCTION

TENS is a method of electrical stimulation which primarily aims to provide a degree of symptomatic pain relief by exciting sensory nerves and thereby stimulating either the pain gate mechanism and/or the opioid system. The different methods of applying TENS relate to these different physiological mechanisms. The effectiveness of TENS varies with the clinical pain being treated, but research would suggest that when used 'well' it provides significantly greater pain relief than a placebo intervention. There is an extensive research base for TENS in both the clinical and laboratory settings and whilst this summary does not provide a full review of the literature, the key papers are referenced. It is worth noting that the term TENS could represent the use of ANY electrical stimulation using skin surface electrodes which has the intention of stimulating nerves. In the clinical context, it is most commonly assumed to refer to the use of electrical stimulation with the specific intention of providing symptomatic pain relief. If you do a literature search on the term TENS, do not be surprised if you come across a whole lot of 'other' types of stimulation which technically fall into this grouping.

2.OBJECTIVE OF THE STUDY

1. To assess the pre-test and post-test Knowledge score regarding transcutaneous electrical nerve stimulation application on pain among primi gravid women.

2. To assess the effectiveness of awareness packageme on knowledge regarding transcutaneous electrical nerve stimulation application on pain among primi gravid women.

3. To find out the association between the pre-test knowledge score regarding transcutaneous electrical nerve stimulation application on pain among primi gravid women with their selected demographic variables.

3.HYPOTHESES:

RH₀: There will be no significant difference between pretest and post-test knowledge score on transcutaneous electrical nerve stimulation application on pain among primi gravid women.

RH₁: There will be significant difference between pretest and post-test knowledge score on transcutaneous electrical nerve stimulation application on pain among primi gravid women.

RH₂: There will be significant association between the pre-test score on transcutaneous electrical nerve stimulation application on pain among primi gravid women with their selected demographic variables.

4.ASSUMPTION

1. Primi gravid women may have deficit knowledge regarding transcutaneous electrical nerve stimulation application on pain.

2. Awareness package will improve knowledge of primi gravid women regarding transcutaneous electrical nerve stimulation application on pain.

5.METHODOLOGY:

An evaluative approach was used and research design pre-experimental one group pre-test post-test research design was used for the study. The samples consisted of 40 primi gravid women of preterm selected by Non probability convenient sampling technique. The setting for the study was Index hospital in Indore. Data was collected with the help of demographic variables and administering a self-structured knowledge questionnaire by the investigator before and after awareness package. Post-test was conducted after 7 days of pretest. Data were analysis using descriptive & inferential statistics.

6.ANALYSIS AND INTERPRETATION

SECTION-I Table -1 Frequency and percentage distribution of samples according to their demographic variables.
n = 40

S. No	Demographic Variables	Frequency	Percentage
1	**Age in Years**		
a.	21-23	8	20.0
b.	24-26	16	40.0
c.	27-29	7	17.5
d.	>29	9	22.5
2.	**Religion**		
a.	Hindu	19	47.5
b.	Muslim	15	37.5
c.	Christian	2	5.0
d.	Any other	4	10.0
3	**Educational status**		
a.	Primary	2	5.0
b.	Secondary	17	42.5
c.	Higher secondary	14	35.0
d.	Graduate	3	7.5
e.	No Formal education	4	10.0
4	**Occupation**		
a.	Professional	2	5.0
b.	House wife	19	47.5
c.	Laborer	16	40.0
d.	Any other specify	3	7.5

SECTION-II- Table- 2.1.1- Frequency and percentage distribution of Pre-test scores of studied subjects:

Category and test Score	Frequency (N=40)	Frequency Percentage (%)
POOR (01-06)	32	80.0
AVERAGE (7-12)	8	20.0
GOOD (13-18)	0	0.0
TOTAL	40	100.0

The present table 2.1.1 concerned with the existing knowledge regarding transcutaneous electrical nerve stimulation application on pain among primi gravid women was shown by pre-test score and it is observed that most of the primi gravid women 32 (80.0%) were poor (01-06) knowledge and some primi gravid women have 8(20.0%) average category (7-12).

FIG.-2.1.1- Frequency and percentage distribution of Pre-test scores of studied subjects

Table-2.1.2. - Mean ($\overline{X}$) and standard Deviation (s) of knowledge scores:

Knowledge Pre –test	Mean ($\overline{X}$)	Std Dev (S)
Pre-test score	1.20	0.40

The information regarding mean, percentage of mean and standard deviation of test scores is shown in table 2.1.2 knowledge in mean pre-test score was 1.20±0.40 while in knowledge regarding transcutaneous electrical nerve stimulation application on pain among primi gravid women in Index hospital in Indore.

Hence, it is confirmed from the tables of section-II that there is a significant difference in mean of test scores which partially fulfill the first second objective of the present study.
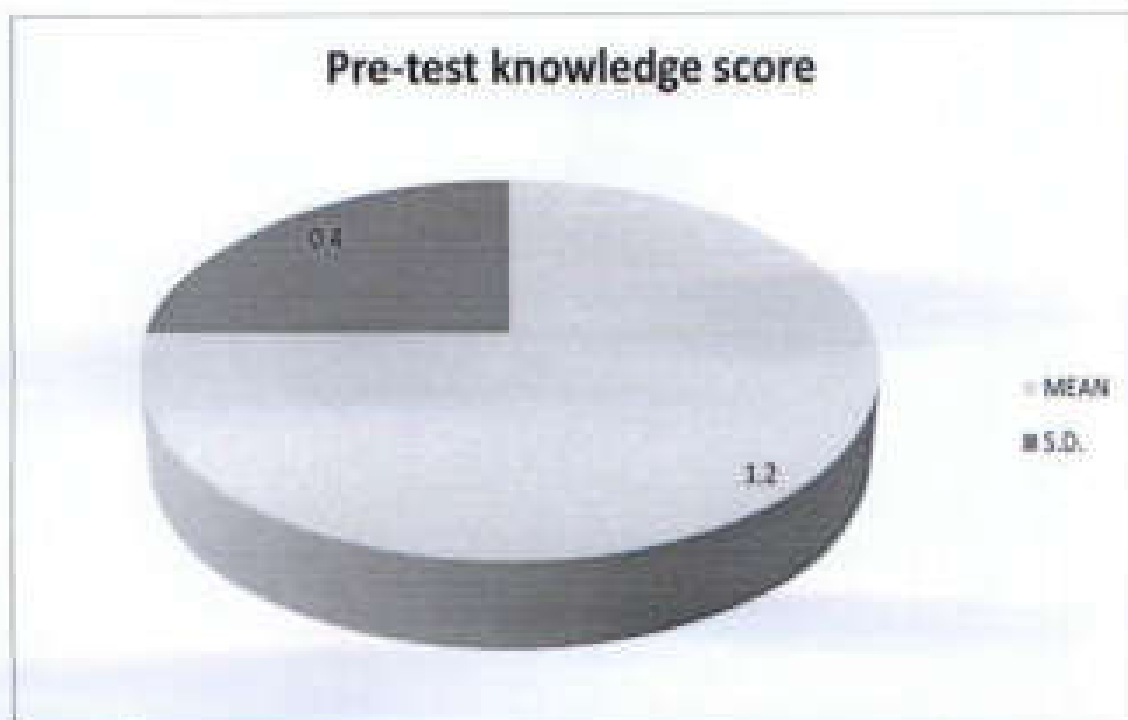
FIG.-2.1.1. - Mean ($\overline{X}$) and standard Deviation (s) of knowledge scores

Table-2.2.1- Frequency and percentage distribution of Post test scores of studied subjects:

Category and post-test Score	Frequency (N=40)	Frequency Percentage (%)
POOR (01-06)	0	0.0
AVERAGE (7-12)	9	22.5
GOOD (13-18)	31	77.5
TOTAL	40	100.0

The present table 2.2.1 concerned with the existing knowledge regarding transcutaneous electrical nerve stimulation application on pain among primi gravid women was shown by post test score and it is observed that most of the primi gravid women 31(77.5%) were **GOOD** (13-18) knowledge and other primi gravid women have 9(22.5%) category which are **AVERAGE** (07-12) posttest knowledge score in the present study.
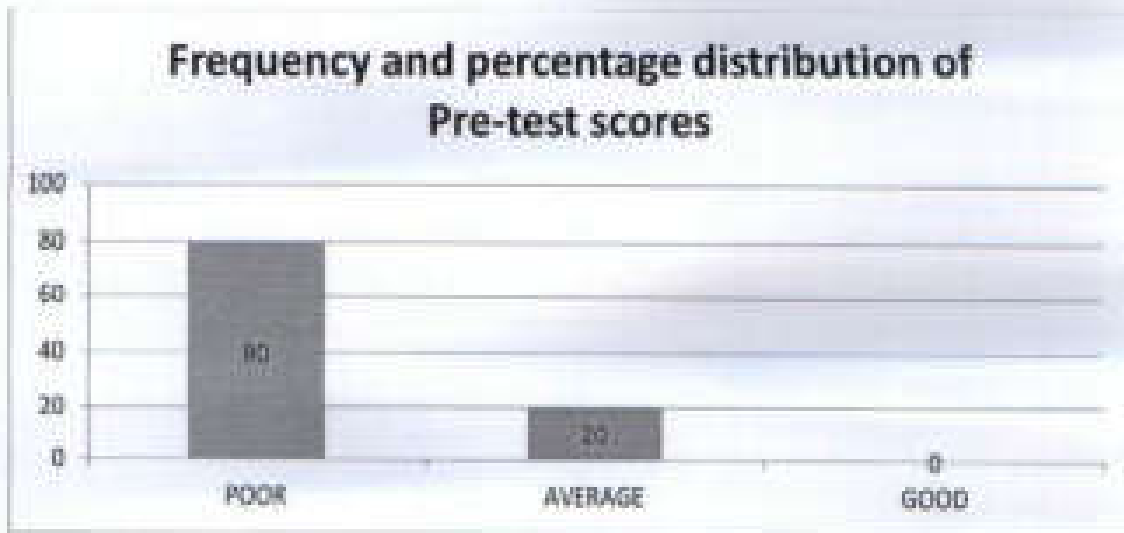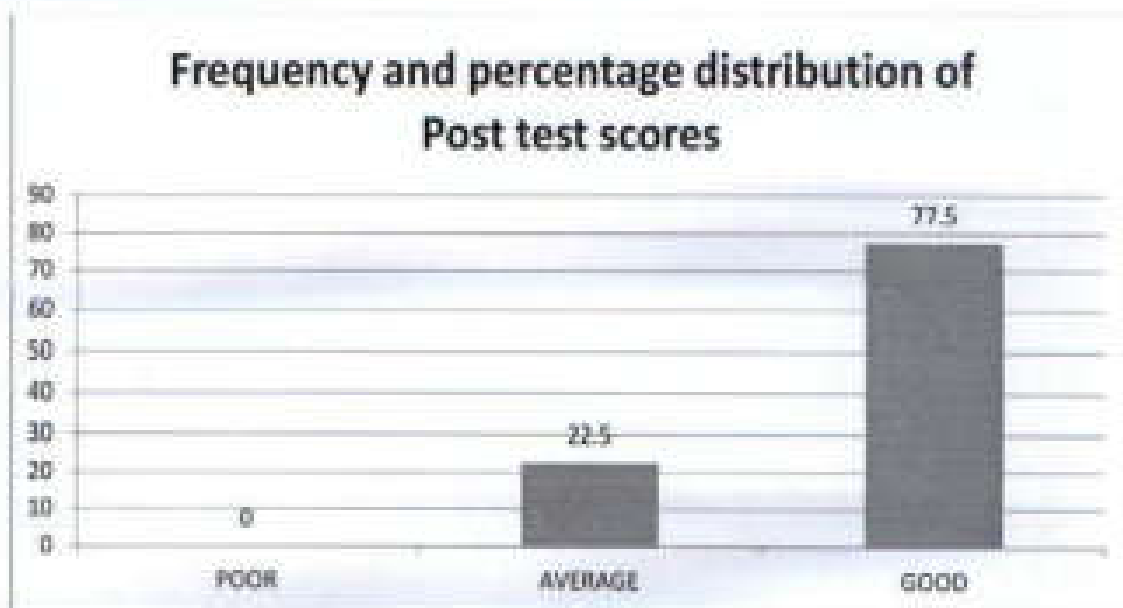

FIG.-2.2.1- Frequency and percentage distribution of Post test scores of studied subjects

Table-2.2.2. - Mean ($\overline{X}$) and standard Deviation (s) of knowledge scores:

Knowledge Test	Mean ($\overline{X}$)	Std Dev (S)
Post-test score	2.77	0.42

The information regarding mean, percentage of mean and standard deviation of post test scores is shown in table 2.2.2 knowledge in mean post test score was 2.77±0.42 while in knowledge regarding transcutaneous electrical nerve stimulation application on pain among primi gravid women in Index hospital in Indore.

Hence, it is confirmed from the tables of section-II that there is a significant difference in mean of test scores which partially fulfill the first second objective of the present study.
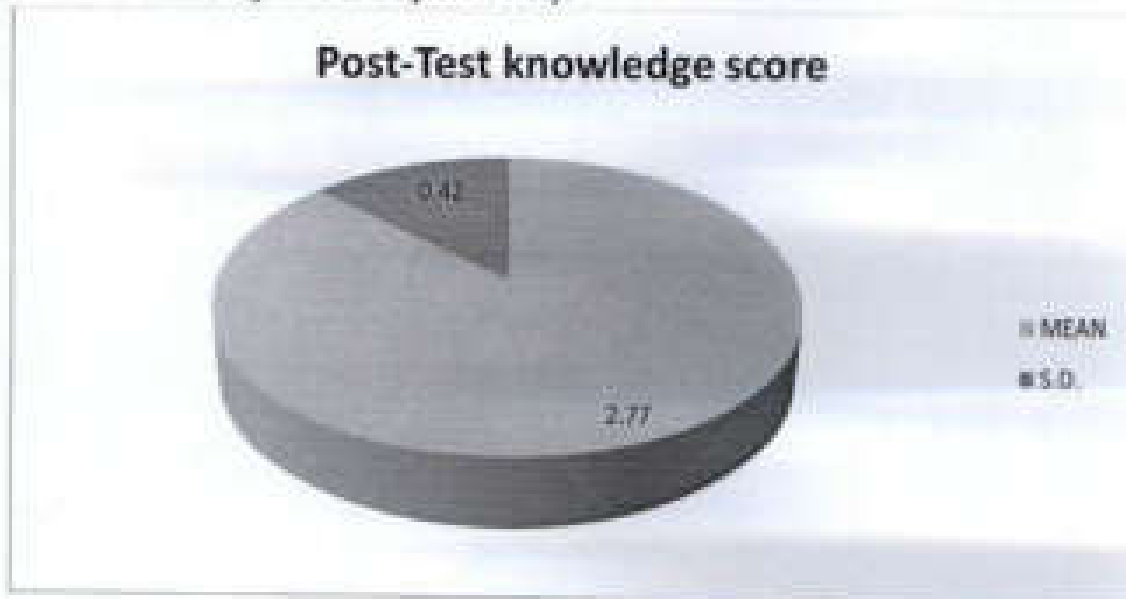
FIG.-2.2.2. - Mean ($\overline{X}$) and standard Deviation (s) of knowledge scores:

TABLE 2.2.3: Effectiveness of awareness package by calculating Mean, SD, Mean Difference and 't' Value of Pre-test and Post-test knowledge.

Knowledge Score of Primi gravid women	Mean ($\overline{X}$)	S. D. (s)	Std. Error of Mean	D. F.	t-value	Significance
Pre-test	1.20	0.40				
Post-test	2.77	0.42	0.09	39	-16.76	P<0.0001

When the mean and SD of pre-test and post-test were compared and 't' test was applied. It can be clearly seen that the 't' value was -16.76 and p value was 0.0001 which clearly show that awareness package was very effective in increasing the knowledge of primi gravid women.

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**SECTION-III Association of knowledge scores between test and selected demographic variables:**

Table- 3.1 Association of age with pre-test scores:

Age	Test scores			Total
(In years)	POOR (1-6)	AVERAGE (7-12)	GOOD (13-18)	
21-23	7	1	0	8
24-26	12	4	0	16
27-29	4	3	0	7
>29	9	0	0	9
Total	32	8	0	40
	X=5.06	p>0.05(Insignificant)		

The association of age test scores is shown in present table 3.1. The probability value for Chi-Square test is 5.06 for 3 degrees of freedom which indicated a insignificant value (p>0.05). Hence, it is identified that there is a insignificant association between age and test scores. Moreover, it is reflected that age isn't influenced with the present problem.

Table- 3.2 Association of Religion with pre-test scores:

Religion	Test scores			Total
	POOR (1-6)	AVERAGE (7-12)	GOOD (13-18)	
Hindu	17	2	0	19
Muslim	10	5	0	15
Christian	1	5	0	2
Any other	4	1	0	4
Total	32	8	0	40
	X=4.85	p>0.05 (Insignificant)		

The association of religion and test scores is shown in present table 3.2. The probability value for Chi-Square test is 4.85 for 3 degrees of freedom which indicated a insignificant value (p>0.05). Hence, it is identified that there is a significant association between religion and test scores.

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Table-3.3. Association of Educational status with pre-test scores:

Educational status	Test scores			Total
CLASS	POOR (1-6)	AVERAGE (7-12)	GOOD (13-18)	
Primary	2	0	0	2
Secondary	13	4	0	17
Higher secondary	11	3	0	14
Graduate	2	1	0	3
No formal education	4	0		4
Total	32	8	0	40
	X=1.98	p>0.05 (Insignificant)		

The association of educational status test scores is shown in present table 3.3. The probability value for Chi-Square test is 1.98 for 4 degrees of freedom which indicated a insignificant valve (p>0.05). Hence, it is identified that there is a insignificant association between educational status and test scores. Moreover, it is reflected that educational status isn't influenced with the present problem.

Table- 3.4 Association of occupation with pre-test scores:

Occupation	Test scores			Total
CLASS	POOR (1-6)	AVERAGE (7-12)	GOOD (13-18)	
Professional	1	1	0	2
House wife	17	2	0	19
Laborer	12	4	0	16
Any other	2	1	0	3
Total	32	8	0	40
	X=2.77	p>0.05 (Insignificant)		

The association of occupation test scores is shown in present table 3.4. The probability value for Chi-Square test is 2.77 for 3 degrees of freedom which indicated occupation and test scores. Moreover, it is reflected that occupation isn't influenced with the present problem.

7.RESULTS

The result of this study indicates that there was a significant increase in the post-test knowledge scores compared to pretest scores of transcutaneous electrical nerve stimulation application on pain. The mean percentage knowledge score was observed 1.20±0.40 in the pre-test and after implementation of awareness package post-test mean percentage was observed with 2.77±0.42.

8.CONCLUSION

Thus, after the analysis and interpretation of data we can conclude that the hypothesis RH1 that, there will be significance difference between the pre-test knowledge score with post-test knowledge score at the (P<0.05) is being accepted. Furthermore, awareness package regarding transcutaneous electrical nerve stimulation application on pain among primi gravid women may consider as an effective tool when there is a need in lacking, bridging and modifying the knowledge.

9.LIMITATIONS-

- The study was limited to Index hospital in Indore.
- The study was limited to 40 primi gravid women.

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A Study to Evaluate the Effectiveness of Structured Teaching Programme on Knowledge Regarding Child Abuse among Mothers in Gunsara Village, Bharatpur (Rajasthan)

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Abstract

Introduction: Child abuse is a serious problem that has a significant long term impact on individual, families, and community. Raising awareness and understanding of child abuse is the first important step towards addressing the issue. Originally the term 'child abuse' was restricted to the battered baby syndrome but it has now been extended to a deliberate act of physical, sexual, emotional and maltreatment or neglect of children by parents, guardians or others.

Materials & Methods: In this study, pre experimental "one group pre and post test design" used to evaluate the effectiveness of structured teaching programme on knowledge regarding child abuse among mothers.

Results: Association test between the post-test level of knowledge with the selected demographic variables shows the significant association between post-test levels of knowledge with educational status of mothers. The $\chi 2$ value was 11.15. This was significant at $P<0.05$ level. There was no significant association between the level of knowledge with age, occupation, monthly income, number of children, type of family and source of information regarding child abuse.

Conclusions: If children's are educated, healthy, happy and have access to opportunities, they are the country's greatest human resource. Children are the treasures of a nation. They are to develop into its citizens and leaders of tomorrow. Healthy children are the greatest resource and pride of any nation. Investment in the children's development and safety is an investment in the future of the nation. Thus their health and development must be monitored at every step of their life. They deserve to inherit a safer.

Keywords: structured teaching programme; Knowledge; child abuse

Introduction

Before you beat a child be sure you yourself are not the cause of offence"

<div align="right">- Austin O'Malley</div>

Worldwide, there are three million reports of child abuse and neglect per year. However, experts view is that the actual number is 3 times the amount of child abuse and neglect estimated.

It is a sensitive issue that is rarely openly discussed by the general people. Sadly, there is a significant underestimation by the community of the extent and nature of the problem. Child abuse also known as *child maltreatment, child neglect, parental dysfunction, silverman's syndrome.*

The first case of a battered child found by Samuel West in 1888, but it was misdiagnosed as due to rickets. Infanticide was well known in China, Rome and Greek. In India the first case of child abuse was described in 1967 by Indian literature. And there is a lack of general awareness of Child Abuse and Neglect (CAN).

According to **World Health Organization (WHO)**, "Child abuse or maltreatment constitutes all forms of physical or emotional ill-treatment, sexual abuse, neglect or negligent treatment or commercial or other exploitation, resulting in actual or potential harm to the child's health, survival, development or dignity in the context of a relationship of responsibility, trust or power".

Child abuse is a state of emotional, physical, economic and sexual maltreatment meted out to a person below the age of eighteen and is a globally prevalent phenomenon. However, in India, as in many other countries, there has been no understanding of the extent, magnitude and trends of the problem. The growing complexities of life and the dramatic changes brought about by socio-economic transitions in India have played a major role in increasing the vulnerability of children to various and newer forms of abuse. Child abuse has serious physical and psycho-social consequences which adversely affect the health and overall well-being of a child.

The **world health organization (2001)** reported approximately 31,000 deaths recognized to homicide among children less than 15 years of age. In 2002 it has reported thatsuicide is the third leading cause of death in adolescent around the world. It has also estimated that almost 53,000 child deaths in the year were due to child homicide.Each year more than 40 million children are subjected to child abuse.

TNAI journal of India(2011) reported that each year tens of thousands of children are traumatized by physical, sexual and emotional abusers or by care givers who neglect them.

Lesley. D. Biswas(2011) noted in times of India news paper that, every 2.5 hours a child below 16 years of age and every 13 hours a child below 10 years of age is raped in India, making it the country with the highest number of child sexual abuse of any country.

Global Prevalence of Child Sexual Abuse study conducted by **The Centers for Disease Control and the U.S. (2011),** 19.7% of women globally experienced sexual abuse prior to the age of 18. The highest prevalence rate of child sexual abuse geographically was found in Africa (34.4 %). Europe showed the lowest prevalence rate (9.2%). America and Asia had prevalence rates between 10.1% and 23.9%.

Ministry of statistics and programme implementation, Government of India (2012) report shows that, Sikkim had the highest Work Participation Rate (WPR) in the country with 12.04 % child laborers among total children in the age group of 5-14 years, followed by **Rajasthan 8.25 %** and Himachal Pradesh (8.14%) during 2001. The other states having higher than the national average of 5 percent WPR for children are Andhra Pradesh (7.7%), Chattisgarh (6.96%), Karnataka (6.91%), Madhya Pradesh (6.71%), J&K (6.62%), Arunachal Pradesh (6.06%), Jharkhand and Assam (5.07%). It is alarming that, in 2011, the Crimes against children reported a 24% increase from the previous year with a total of 33,098 cases of crimes against children reported in the country during 2011 as compared to 26,694 cases during 2010. The State of Uttar Pradesh accounted for 16.6% of total crimes against children at national level in 2011, followed by Madhya Pradesh (13.2%), Delhi (12.8%), Maharashtra (10.2%), Bihar (6.7%) and Andra Pradesh (6.7%).

Objectives

- To assess the level of knowledge regarding child abuse among mothers before structured teaching programme.
- To assess the level of knowledge regarding child abuse among mothers after structured teaching programme.
- To find out the effectiveness of structured teaching programme on child abuse.
- To find out the association between the post test level of knowledge with the selected demographic variables.

Methodology:

In this study, **pre experimental "one group pre and post test design"** used to evaluate the effectiveness of structured teaching programme on knowledge regarding child abuse among mothers.

Sample and sample size

This study was conducted in Gunsara village. It is situated in kumhertahsil, Bharatpur district of Rajasthan state. It is 18 kilometer away from the Bharatpurcity. The total population of this village is 4350. This village is having nearly 500 families. There are 450 mothers having children, birth to 18 years of age.

A proportion or subset of the population is known as sample. The sample of this study consists of 50 mothers, who are having children, birth to eighteen years of age and residing in Gunsara village, Bharatpur (Rajasthan).

Sampling technique

For this study the samples were selected by using convenient sampling technique. It is a type of non-probability sampling which involves the sample being drawn from that part of the population which is close to hand. That is, a sample population selected because it is readily available and convenient.

Validity and Reliability

In order to establish the reliability of the tool, it was administered to six mothers

Reliability was obtained by spearman correlation method. Reliability of the tool was 0.95. Thus the tool was found highly significant and reliable.

Results

"Child is as soft as a flower"

The pre test result revealed that 36(72%) mothers had inadequate knowledge, 14(28%) had moderately adequate knowledge and none had adequate knowledge regarding child abuse.

The post test result revealed that, out of 50 mothers, 15 (30%) mothers had moderately adequate knowledge, 35 (70%) had adequate knowledge and none had inadequate knowledge regarding child abuse.

Regarding causes and types of child abuse, pre and post test mean were 5.64 and 9.64 respectively, with standard deviation of 2.18 and 1.83.

Considering the assessment, management and prevention of child abuse, pre and post test mean were 6.26 and 13.04 respectively, with standard deviation of 2.92 and 2.15.

Total pre test mean and standard deviation were 11.90 and 3.76 respectively with standard error of the mean 0.53. Post test mean and standard deviation were 22.68 and 3.32 respectively with standard error of the mean 0.47.

With regards to causes and types of child abuse, mean difference and standard error of the mean were 4.00and 0.28 respectively with SD of 1.97 and calculated t value was 14.28. It was significant at 0.05 level.

The level of knowledge about assessment, management and prevention of child abuse was significant at 0.05 level. Mean difference was 6.78 with SD of 3.42. Standard error of the mean was 0.48 with calculated t value 14.00.

While comparing the total level of knowledge between pre-test and post-test, the difference mean value was 10.78with a standard deviation of 4.26 and calculated t value was 17.86. Standard error of the mean was 0.60. It was statistically significant at $P<0.05$ level. This shows that there was significant increase in the level of knowledge of mothers regarding child abuse after the STP.

Association test between the post-test level of knowledge with the selected demographic variables shows the significant association between post-test levels of knowledge with educational status of mothers. The χ^2 value was 11.15. This was significant at $P<0.05$ level. There was no significant association between the level of knowledge with age, occupation, monthly income, number of children, type of family and source of information regarding child abuse.

Objectives of the study

1. *To assess the level of knowledge regarding child abuse among mothers before structured teaching programme.*

distribution of the level of knowledge regarding child abuse among mothers during pre-test. The result revealed that 36(72%) mothers had inadequate knowledge, 14(28%) had moderately adequate knowledge and none had adequate knowledge regarding child abuse.

2. *To assess the level of knowledge regarding child abuse among mothers after structured teaching programme.*

Illustrates the distribution of the level of knowledge regarding child abuse among mothers during post - test. After the structured teaching program there was a significant increase in knowledge level of the mothers. Out of 50 mothers, 15 (30%) mothers had moderately adequate knowledge, 35 (70%) had adequate knowledge and none had inadequate knowledge regarding child abuse.

3. **To find out the effectiveness of structured teaching programme on child abuse.**

The area wise distribution of level of knowledge regarding child abuse among mothers.

Regarding causes and types of child abuse, pre and post test mean were 5.64 and 9.64 respectively, with standard deviation of 2.18 and 1.83.

Considering the assessment, management and prevention of child abuse, pre and post test mean were 6.26 and 13.04 respectively, with standard deviation of 2.92 and 2.15.

Total pre test mean and standard deviation were 11.90 and 3.76 respectively with standard error of the mean 0.53. Post test mean and standard deviation were 22.68 and 3.32 respectively with standard error of the mean 0.47.

The area wise distribution of difference in level of knowledge regarding child abuse among mothers between pre and post test.

With regards to causes and types of child abuse, mean difference and standard error of the mean were 4.00 and 0.28 respectively with SD of 1.97 and calculated t value was 14.28. It was significant at 0.05 level.

The level of knowledge about assessment, management and prevention of child abuse was significant at 0.05 level. Mean difference was 6.78 with SD of 3.42. Standard error of the mean was 0.48 with calculated t value 14.00.

While comparing the total level of knowledge between pre-test and post-test, the difference mean value was 10.78 with a standard deviation of 4.26 and calculated t value was 17.86. Standard error of the mean was 0.60. It was statistically significant at $P<0.05$ level. This shows that there was significant increase in the level of knowledge of mothers regarding child abuse after the STP with under five children. And after a STP, 80% mothers have got adequate knowledge and 20% got moderate adequate knowledge.

4. **To find out the association between the post test level of knowledge with the selected demographic variables.**

Illustrates the association between the post-test levels of knowledge regarding child abuse among mothers with the selected demographic variables.

This shows the significant association between post-test levels of knowledge with educational status of mothers. The χ^2 value was 11.15. This was significant at $P<0.05$ level.

There was no significant association between the level of knowledge with age, occupation, monthly income, number of children, type of family and source of information regarding child abuse.

The overall findings of the study revealed that there was significant difference in the mean pre and post test knowledge after the structured teaching programme regarding child abuse among mothers. Hence the hypothesis stated at the beginning of this study is confirmed.

Conclusions

The findings of this study support the need for conducting an awareness programme regarding child abuse. The study proved that adolescent girls had inadequate knowledge regarding child abuse before. Structured teaching programme. After executing the structured teaching programme, the motherhave improved the knowledge regarding child abuse. Such structured teaching programme distribution can be carried out in the village to improve the knowledge of mother regarding child abuse.

Recommendations

1. A same kind of study can be conducted for a larger group.
2. A comparative study can be carried out to check the level of knowledge of mothers regarding child abuse in the urban and rural area.
3. Further studies should be conducted about the attitude and practice regarding prevention of child abuse among mothers.
4. A same kind of study can be conducted to antenatal, postnatal mothers, village health guide and village head to improve their knowledge level regarding prevention of child abuse.
5. An experimental study can be conducted with control group.
6. A longitudinal study can be done using post test after one month, six month and one year to see the retention of knowledge.

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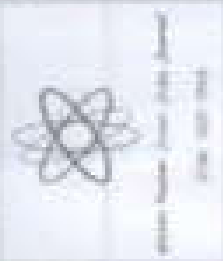
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To know about Sickle cell anemia disease

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Abstract

Mutations in HBB, which encodes the haemoglobin component, are the basis for the genetic diseases known as sickle cell disease (SCD). The bulk of cases are thought to occur in sub-Saharan Africa, where the frequency is thought to be between 300,000 and 400,000 neonates annually. Mutant sickle globin subunit-containing hemoglobin molecules have the ability to polymerize, and erythrocytes that mostly contain sickled hemoglobin polymers are susceptible to hemolysis. Vaso-occlusion and immune system activation are additional pathophysiological pathways that contribute to the SCD phenotype. An astounding phenotypic complexity distinguishes SCD. Chronic problems, such as chronic renal disease, can harm all organs. Common acute complications include acute pain episodes, acute chest syndrome, and stroke. Blood transfusions, hydroxycarbamide, and haematopoietic stem cell transplantation can all lessen the severity of the illness. Universal newborn screening programs have been adopted in several countries, but they are hard in low-income, high-burden settings. Early diagnosis is essential to enhance survival.

I. Introduction

A set of genetic disorders characterized by mutations in the gene encoding the haemoglobin subunit (HBB) and characterized by sickle cell anemia (SCA), HbSC, and HbS-thalassaemia are together referred to as sickle cell disease (SCD) (Fig. 1). Each globin component is connected to the cofactor haem, which can transport an oxygen molecule, and together they make up the tetrameric protein known as hemoglobin (Hb). Red blood cells, including reticulocytes (immature red blood cells) and erythrocytes (mature red blood cells), express hemoglobin (Hb). Different varieties of Hb are generally expressed at different times of life, including embryonic, fetal, and adult. Several genes encode distinct types of globin proteins, and their varied tetrameric combinations produce multiple types of Hb. The most prevalent form of adult hemoglobin, known as hemoglobin A (HbA), has two -globin subunits (produced by the duplicated HBA1 and HBA2 genes) and two -globin subunits. The sickle Hb (HbS) allele is created by a single nucleotide change in HBB; the mutant protein produced by the S allele is the sickle -globin subunit and has an amino acid substitution. The erythrocytes can take on a crescent or sickled form as a result of the polymerization of Hb tetramers that contain two of these mutant sickle -globin subunits (i.e., HbS) during conditions of deoxygenation (i.e., when the Hb is not linked to oxygen). Although less effectively than HbS, Hb tetramers with one sickle -globin component can also polymerize. Sickle erythrocytes can cause SCD's characteristic recurring vaso-occlusive episodes.

SCD is inherited as an autosomal codominant trait; those who are homozygous for the S allele have SCA, whereas those who are heterozygous for the S allele possess the sickle cell trait (HbAS) but do not have

SCD. The most typical form of SCD, SCA, is a chronic condition marked by widespread organ damage, unpredictable pain episodes, and persistent hemolytic anemia. Both the life expectancy and the clinical severity of SCA are highly variable. High levels of fetal Hb (HbF; the heterodimeric mixture of two - globin proteins and two -globin proteins (encoded by HBG1 and HBG2)) and the co-inheritance of - thalassaemia (which is caused by mutations in HBA1 and HBA2) are consistently linked to milder SCD phenotypes, according to genetic and genome-wide association studies. However, only a small portion of the observed phenotypic heterogeneity is explained by these two biomarkers.

A rapidly growing corpus of knowledge has contributed to a better understanding of SCD since the 1980s, especially in high-income nations. In the US, funding for research has skyrocketed, awareness and education campaigns have expanded, counseling campaigns have improved, and universal newborn screening campaigns now guarantee early detection and intervention. A cadre of knowledgeable health professionals working in this field is the result of specific research and training programs, which also improved patient management, prevented problems, and increased life expectancy.

II. Epidemiology

Particularly in regions with high prevalence, there is not a lot of knowledge on the natural history of SCD, which is important for SCD prevention and control. The two main sources of data are the Cooperative Study of Sickle Cell Disease (CSSCD; 1978-1998) in the United States, which collected information on growth and development, disease complications, clinical studies, and epidemiology on more than 3,000 SCD patients, and the Jamaican Cohort Study of Sickle Cell Disease, which was started in 1973 and followed up all SCD patients found among 100,000 consecutive deliveries in Kingston, Jamaica. Since the CSSCD was terminated, a few single-institution ongoing registries, screening cohorts of clinical trials, and administrative health data sets can be used to determine the ongoing natural history of SCD in the United States.

Numerous cohort studies in high- and middle-income nations have shown that the clinical course of SCD in both children and adults has significantly changed since the 1970s. Children with SCA have been found to live as long as healthy children in the United States and the United Kingdom. A median longevity of 67 years has been reported for patients with SCD at one London hospital; nevertheless, survival is still significantly lower than that of the overall population of London. Adults with SCD in high-income nations can now be expected to live well into their sixties. The transition from pediatric to adult patterns of lifestyle and medical care delivery is becoming more crucial as the juvenile mortality rate for SCD has decreased. For instance, the number of adult haematologists in the United States with specialized training in SCD is dwindling; therefore adults with SCD are treated by primary care physicians or by haematologists-oncologists with a limited amount of SCD experience. There is a paucity of information on SCD patients' survival in sub-Saharan Africa and India. According to data from African studies, 50–90% of children under the age of five die from SCA.

III. Prevalence and incidence

According to estimates, there were 230,000 SCA births in sub-Saharan Africa in 2010. This represents 75% of all SCA births worldwide. In addition, HbSC illness, the second most typical form of SCD16, is most prevalent in West Africa. These figures are expected to rise during the next 40 years, especially in sub-Saharan Africa17. According to estimates from 2010, sub-Saharan Africa had more than 3.5 million

newborn newborns with HbAS who could benefit from a strong defense against deadly P. falciparum malaria and its accompanying mortality. No African nation has yet launched a countrywide SCD1screening program. Estimating the frequency, incidence, and impact of disease remains difficult, even in nations with universal screening programs that have been in existence for more than ten years (such as the United Kingdom). During 1.1 million newborns in the United States had the HbAS genotype, and 40,000 confirmed instances of SCD have been found in 76 million newborns during the past 20 years. As a result, SCD affected 1 in every 1,941 neonates, and 1 in every 67 individuals had the heterozygous S mutation.

Because of the ethnic diversity of the Brazilian population, the frequency of SCD in newborn neonates varies greatly between Brazilian states. One in 650 newborns in the state of Bahia, one in one hundred in the state of Rio de Janeiro, and one in thirteen thousand five hundred in the state of Santa Catarina were checked for SCD in 2014. Over 60,000 infants were heterozygous for the S allele and 1,071 newborns nationwide developed SCD in 2016 (F.F.C., unpublished observations). In the entire nation, 30,000 people are thought to have SCD. Depending on the area, the prevalence of the S allele in Brazil ranges from 1.2% to 10.9%, whereas the prevalence of the C allele is estimated to be between 0.15% and 7.4%25-30. Currently, there is no reliable estimate of the total number of people of all ages who are affected by SCA worldwide due to the dearth of epidemiological data, particularly mortality statistics, in regions with high prevalence.

IV. Diagnosis, screening and prevention

The objectives and procedures for diagnosing SCD change depending on the patient's age. Preconception, prenatal, neonatal, and post-neonatal testing periods generally overlap. Preconception testing is intended to find asymptomatic potential parents who might pass down SCD to their offspring. Preconception testing uses standard, fundamental protein science laboratory procedures including Hb electrophoresis, high-performance liquid chromatography (HPLC), and isoelectric focusing100 that allow separation of Hb species based on their protein structures. Couples who tested positive at preconception screening are given the option of prenatal diagnosis, an early pregnancy procedure that is generally safe but invasive. It needs fetal DNA samples from an examination of the chorionic villus at 9 weeks' gestation. Techniques for non-invasive prenatal diagnosis are being developed, although they are still in the research stage. By as early as 4 weeks of gestation, these novel methods can identify fetal DNA in the maternal circulation. If pre-implantation genetic diagnosis is available, some couples who test positive during preconception screening may choose to undergo in vitro fertilization in order to genetically identify at-risk embryos prior to embryo transfer.

Newborn screening

Before any symptoms appear, newborns are screened for SCD at birth using Hb protein analysis techniques. There are two different kinds of newborn screening programs that have been used: targeted screening, which targets infants with high-risk parents, and universal screening. In general, universal screening is more economical, finds more sick newborns, and prevents more fatalities. At around 21 months of age, SCD is initially diagnosed in regions lacking neonatal screening programs. A deadly infection or an acute splenic sequestration crisis is the typical initial presentations for many people with SCD. The mortality rate in the first five years of life is reduced from 25% to 3% by early diagnosis,

penicillin prophylaxis, and family education. In low-income nations, similar encouraging outcomes are observed.

Post-neonatal testing

The need for post-neonatal SCD testing is determined by a number of variables that affect how well the general public is informed about their SCD status. These elements include availability to newborn screening findings for older patients, immigration of at-risk patients who have not been examined, and regional success of neonatal screening programs. Despite the fact that HbAS is a benign condition and not a disease, it increases the chance of several rarely occurring significant complications. Therefore, understanding one's own HbAS status is crucial for family planning and the prevention of rare but critical problems.

Newborn screening programs can also detect HbAS, but this is not their main goal, thus many of them don't give this information or provide any related counseling. Screening should be conducted on those who intend to become parents to identify heterozygous genes that may be crucial for genetic counseling. Making educated judgments about preconception counseling and prenatal diagnosis is made possible by HbAS screening.

For people with HbAS, regular exercise training does not raise the risk of mortality. However, there is a worry that vigorous, protracted physical activity increases the risk of rhabdomyolysis (rapid skeletal muscular breakdown) and sudden mortality; this risk can be reduced by appropriate training. These findings have led to the voluntary or required screening of athletes for HbAS in some areas. There are a few unique and uncommon HbAS problems that call for testing. These include hyphema (blood in the eye's anterior chamber), haematuria (blood in the urine), and renal medullary carcinoma, a rare cancer. HbAS may be a risk factor for pulmonary embolism and chronic renal disease.

V. Management

SCD is a multisystem, complex illness with both acute and chronic consequences. In high-income countries, the life expectancy of people with SCA has significantly increased due to advances in general medical care, early diagnosis, and comprehensive treatment because practically all patients live past the age of 18. The quality of life for those with SCD frequently declines during adulthood, life expectancy is still reduced by about 30 years, and the social and psychological effects of SCD on affected people and their families are still underappreciated. Despite the best medical care available, these issues still exist. Additionally, the majority of these advancements have not reached low-income nations.

Therapies

Hydroxycarbamide

Ribonucleotide reductase inhibitor hydroxycarbamide, also known as hydroxyurea in some countries, increases HbF expression (in the majority of people with SCA) and lowers leukocyte count, among other physiological consequences. Both the US FDA and the European Medicines Agency (EMA) approved it for the treatment of SCD in 1998 and 2007, respectively. The medication has an excellent safety profile and significantly lowers the frequency of SCA vaso-occlusive crises, hospitalizations, and mortality in high-income countries (studies in low-resource countries are still ongoing). Nevertheless, some patients

do not respond favorably, typically due to restrictions in adherence to treatment but possibly occasionally for pharmacogenomic reasons. Inadequate health care infrastructure in both high- and low-resource nations, as well as erroneous beliefs about hydroxycarbamide's carcinogenicity, teratogenicity, and reduced fertility, which have not yet been problems in follow-up studies.

Erythrocyte transfusion-

This treatment reduces the amount of sickle erythrocytes in the blood, which increases microvascular flow and is linked to less endothelial damage and inflammatory damage. Chronic transfusion therapy can lessen and prevent stroke and vaso-occlusive crises; however, several potential side effects, including iron overload, alloimmunization (an immune response to foreign antigens present in the donor's blood), and hemolytic transfusion reactions limit its potential benefits. Chronic transfusion therapy is typically prescribed in high-resource countries to the roughly 10% of patients with SCA at high risk of stroke. The negative consequences of iron overload have decreased since oral iron-chelating medications became available in 2005. There are significant hazards of transmission of blood-borne illnesses such hepatitis B, hepatitis C, HIV infection, West Nile virus infection, and others in nations where testing of blood products for infectious agents is inadequate. The safety of this treatment is enhanced by iron-chelation therapy recommendations and transfusion protocols with extended erythrocyte matching that includes the erythrocyte antigens Kell, C, E, and Jkb. To lessen alloimmunization, systematic genotyping of the patient's blood groups has been suggested.

Haematopoietic stem cell transplantation-

In SCA, hemopoietic stem cell transplantation is curative and need to be taken into consideration by symptomatic individuals who have a family donor who matches their HLA. Nearly 2,000 SCA patients are thought to have received an allogeneic hematopoietic stem cell transplant globally; US and European studies show that the survival rate is above 90%. The average rate of acute and chronic graft-versus-host disease, which is typically lower with newer approaches158, has been 14% in pooled registry data, and the percentage of graft failure has been 2%. The preliminary outcomes of experimental reduced-intensity conditioning regimens (pretransplant chemotherapy to destroy or suppress the recipient's bone marrow) are highly promising. However, the majority of patients lack a related donor who can match their HLA. Haploidentical donors, who share 50% of the recipient's HLA antigens, and unrelated HLA-matched donors are two types of extended donor pools that have been used experimentally to raise the likelihood of cure but also substantially increase mortality and graft rejection rates. It is possible to treat SCA with a haematopoietic stem cell transplant from the bone marrow of a healthy HLA-matched donor, but only high-income nations offer this treatment.

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A Comparative Study to Assess the Knowledge of the Risk Factors and Identify Risk for Coronary Vascular Diseases (CVD) among Students Studying in Selected High Schools of Urban and Rural Areas of Gwalior

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ABSTRACT

The present study has been conducted to know assess the knowledge of the risk factors and identify risk for coronary vascular diseases (CVD) among students studying in selected high schools of urban and rural areas of Gwalior. The selection of sample was done through convenient sampling. The sample size was 300. The method of data collection was through demographic variables and self-structured knowledge questionnaire, comparsion regarding risk for coronary vascular diseases (CVD) studying in selected high schools students.

KEYWORDS: knowledge, Comparative Study, Effectiveness, coronary vascular disease

INTRODUCTION

Coronary vascular disease (CVD) is responsible for about thirty percent of all death worldwide each year. In India at the onset of 21st century CVD accounts for nearly fifty percent of all deaths. It was noticed that there was a steady increase of heart disease from 1940 and 1967. So the World Health Organization concluded that heart disease is the world's most serious epidemic.

Coronary vascular disease is a type of blood vessel disorder that is included in the general category of atherosclerosis. Many risk factors have been associated with the CVD. Risk factor means 'any trait or habit that can predict an individual's probability of development of a particular disease.' The more risk factors you have the greater chance you have of developing CVD. Knowledge on risk factors of coronary vascular disease will increase the awareness of the risks and to promote preventive measures. The risk factors can be categorized as non-modifiable and modifiable. Unmodifiable factors are age, gender, ethnicity and genetic inheritance. Modifiable risk factors include elevated serum lipids, hypertension, smoking, obesity, physical inactivity and stress

The data on risk factors obtained from several research studies reveals that, the risk factors are positively related to an increased incidence of CVD. Studies have also shown that the risk factors often have their roots in childhood. Findings from the Bogalusa study indicated that the pathological evidence for atherosclerosis in the aorta and coronary arteries begin in the early childhood. A 30-year study conducted in Framingham on 5,127 people between 30 and 60 years showed no signs of heart diseases. Every two years the participants underwent

complete physical examination. At the end of the study it provided priceless profile information for predicting heart disease[5].

Risk factors in children are many, because, the risk behaviours are first established in childhood. The major risk factors of heart disease are hypercholestrolemia, obesity, sedentary lifestyle, hypertension and smoking. Off springs of parent with coronary heart disease have a significant increase in risk factors. National Cholesterol Educational Programme stated that high intake of saturated fatty acids increases the level of total serum cholesterol and low-density lipoprotein (LDL) cholesterol. Elevated serum cholesterol increases the risk of CVD. Most cases of hypercholestrolemia are a result of environmental factors. Childhood levels of total cholesterol and LDL are good predictors of adult level

Hypertension is diagnosed when average systolic or diastolic blood pressure greater than or equal to the 95th percentile to the patient's age and sex. Hypertension disrupts the permeability of the arterial wall and contributes to the increased lipid deposition. This causes arterial stenosis and reduces the flow of blood.

The third major risk factor in CVD is cigarette smoking. The risk is proportional to the number of cigarettes smoked. Nicotine in cigarette smoke causes catecholamine release. These hormones cause increased heart rates, peripheral vasoconstriction and increased blood pressure. Nicotine also causes increased platelet adhesion.

Fast foods are fast killers. These foods do not contain enough vitamins. Junk food usually refers to foods with limited nutritional value. They are high in sugar, salt, fat and low or minimal in nutrient content. Fast food and junk food stalls in India never display their nutritional content and calorific value of foods. Nutrient deficiencies streaming from eating junk foods, fast foods, readymade foods and precooked foods can easily open the doors of illness.

Physical inactivity is the fourth major modifiable risk factor. Physically active people have increased high-density lipoprotein (HDL) cholesterol and exercise enhances the fibrolytic activity. This decreases the risk of clot formation.

Elevated levels of plasma insulin are common in adults and are often associated with CVD. Cross sectional studies both in children and adults have shown that hyperinsulinemia are associated with an adverse pattern of cardio vascular risk factors that include obesity.

Certain modifiable risk factors for CVD have their beginnings in childhood. The incidence of adolescent obesity is dramatically increased and it is associated with the risk of hypertension, adverse lipid profile and type II diabetes mellitus. Children who are at risk for obesity related cardio vascular diseases should receive family based treatment. Nurses are responsible to help in primary care settings for diet modification and exercis.

NEED OF THE STUDY:

Cardiovascular diseases (CVD) comprise a group of diseases of the heart and vascular system. In India there are over 5 million persons suffering from CVD. The prevalence of CVD is reported to be two to three times higher in the urban population. The aetiology of CVD is multifactorial. Several risk factors are identified for developing CVD. The greater the number of risks factors present, the more likely one is to develop CVD. A novel approach to primary prevention of CVD is primordial prevention. Since the aetiology is multifactorial the prevention should be aimed at controlling or modifying as many risk factors as possible. Cardiovascular diseases remain a major cause of mortality, morbidity and disability. As a result therapeutic and preventive measures are taken to control CVD/CHD. Primary prevention of all major risk factors starts early in the lifetime. Prospective population based research studies reveal that lower age specific CVD and total mortality rates increases life expectancy.

A case control study was conducted in Karachi to investigate the risk factors of premature myocardial infarction among South Asians between the age group of 15 to 45. A standard questionnaire was developed and anthropometric measurement including height, weight, waist circumference and hip circumference were obtained. ECG, fasting blood glucose and lipid were measured within 24 hours of admission. The result of the study supported that the risk factors like tobacco use, ghee intake, raised fasting glucose, high cholesterol level, parental history of CVD, low income and low level of education are associated with premature acute myocardial infarctions.

The investigator also observed that there is a need to understand the inter relationship of each risk factor to CVD. Prevention of the disease is more effective than treating the disease. The development of overweight in childhood is linked with increased rates of hypertension, hyperlipidemia, type II diabetes and early atherosclerotic lesions. In the near future we may face more epidemic of CVD. Thus the investigator with self-interest and experience is motivated to assess the knowledge and risk status on risk factors of CVD. Identification of knowledge on

risk factors of CVD will help at primary, secondary and tertiary level of prevention and to minimize the CVD risk factors, thereby minimizing the future associated morbidity and mortality.

OBJECTIVES-
Objectives of the study
1. To assess the knowledge of the risk factors of coronary vascular diseases among students studying in selected high schools of urban and rural areas of Gwalior.

2. To identify the risk of coronary vascular diseases among students studying in selected high schools of urban and rural areas of Gwalior.

3. To compare the knowledge of the risk factors of coronary vascular diseases among students studying in selected high schools of urban and rural areas of Gwalior.

4. To compare the risk and knowledge of the risk factors of coronary vascular diseases among students studying in selected high schools of urban and rural areas of Gwalior.

OPERATIONAL DEFINITION:
1. **Knowledge:** In this study, knowledge refers to the correct responses of the students to the knowledge questionnaire on risk factors of coronary vascular diseases.

2. **Risk factors:** Factors in the environment, or chemical, psychological, physiological or genetic elements that are thought to predispose an individual to the development of a disease[19]. In this study the risk factors refers to obesity, physical inactivity, dietary factors, heredity, gender, and habits such as smoking and alcoholism.

3. **Risk:** The term risk refers to the chance of danger to any disease[19]. In this study risk refers to the risk factors of CVD such as obesity, physical inactivity, dietary factors, heredity, gender, habits and stress which will help to categories the students as low, moderate and high risk for developing CVD as elicited by self-administered tool to identify risk for CVD.

4. **Urban:** In this study urban refers to high school students studying in the schools which are situated in the city or town (Gwalior city).

5. **Rural:** In my study rural refers to high school students studying in the schools which are situated in villages (kedarpur & Veerpur).

6. **Students:** In this study students refer to those who are studying in 10th standards in selected high schools in urban and rural areas of Gwalior.

HYPOTHESIS:
To achieve the stated objectives the following hypotheses were formulated at 0.05 level of significance.

H_1: There will be significant difference in the mean knowledge score regarding the risk factors of coronary vascular diseases among students from selected high schools in urban and rural areas of Gwalior.

H_2: There will be significant difference between the risk of coronary vascular diseases among students from selected urban and rural areas of Gwalior.

H_3: There will be a significant correlation between the level of knowledge and the risk of coronary vascular diseases among students from selected high schools in urban and rural areas of Gwalior.

H_4: There will be significant association between the risk and selected factors regarding coronary vascular diseases among students of selected high schools in urban and rural areas of Gwalior.

H_5: There will be an association between risk for coronary vascular disease and selected baseline characteristics such as age, monthly income, and family history of heart disease.

RESEARCH APPROACH
A descriptive comparative approach is a research design that involves comparing and contrasting two or more samples on one or more variables, often at a single point of time. A descriptive comparative approach has been used to determine the knowledge on risk factors and risk for CVD among students studying in selected schools of urban and rural areas of Gwalior.

RESEARCH DESIGN
A researcher's overall plan for obtaining answers to the research questions for testing the research hypothesis is referred to as the research design[18]. It spells out the basic strategies that the researcher adopts to develop information that is accurate and interpretable. A comparative survey utilises set criteria to contrast two or more groups of designated variables. A descriptive comparative design was used in this study. The study was intended to assess the knowledge on risk factors and identified risk for CVD among high school students studying in urban and rural areas.

RESEARCH SETTING
The setting is where the population is being studied and where the study is carried out. The investigator had selected four high schools, two from urban areas and two from rural areas of Gwalior. The high

schools in urban area were Carmel convent High School and Silver bells high schools while from rural areas were Bhartiyam vidhya niketan High School, kedarpur and Saraswati Shishu Mandir Veerpur. All the students were studying in 10th standard in English medium high schools.

POPULATION
Population is the aggregate of objects, animate or inanimate, under study in any statistical investigation. In this study the population consists of 3255 students studying in selected high schools in urban (2033) and rural areas (1222) of Gwalior

SAMPLE SIZE
Sampling refers to the process of selecting a portion of the population to represent entire population[18]. For the present study 150 students studying in 10th standard in urban and rural areas who fulfilled the sampling criteria were selected. The list of all English medium schools in Gwalior was collected. From this, two high schools from urban and two from rural areas were selected using convenient sampling method. The population consisted of 150 students from urban schools and 150 from rural schools (total 300). The first and second high schools in urban area had two, divisions whereas all two high schools in rural areas had two divisions each in 10th standard high schools in rural area respectively. The total numbers of students (boys + girls) were 154 in schools of urban area and 150 in schools of rural area. Out of these students were selected from each school by lottery method.

CRITERIA FOR SAMPLE SELECTION
Criteria for sample selection
Inclusion criteria
The samples were selected with the following predetermined set of criteria:
1. Students from English medium high schools.
2. The students who were studying in 10th standard in selected schools of urban and rural areas in Gwalior.

3. Students who were willing to participate in the study.
4. Between the age of 14 and 17 years.

Exclusion criteria
1. Students diagnosed to have coronary vascular diseases.

Those students whose parents are in the medical profession

RESULTS
Plan for data analysis
Data analysis is the systematic organisation and synthesis of the research data and the testing of the research hypotheses using those data. The data will be entered into a master sheet. Descriptive and inferential statistics will be used for data analysis. The data will be analysed as shown below:

Section I: Sample characteristics would be analysed by frequency and percentage.

Section II: Comparison of knowledge of risk factors of CVD between students studying in urban and rural areas would be made by mean, standard deviation, mean percentage and unpaired 't' test.

Section III: Comparison of identified risk for CVD between students studying in urban and rural areas would be made by mean, standard deviation, mean percentage and unpaired 't' test.

Section IV: Correlation between knowledge and identified risk for CVD between students studying in urban and rural areas of Gwalior would be found using Karl-Pearson coefficient of correlation.

Section V: Risk and selected factors of coronary vascular disease among students from urban and rural areas would be analysed by Karl-Pearson coefficient of correlation.

Section VI: Association between risk for coronary vascular disease and selected variables would be analysed by chi-square test.

Section I: Sample characteristics

Table 1: Frequency and percentage distribution of sample characteristics among students studying in urban and rural areas

N = 75 + 75 = 150

Sl. No.	Variable	Urban		Rural	
		f	%	f	%
1.	Age (in years)				
	14 – 15	65	87	64	85
	16 – 17	10	13	11	15
2.	Religion				
	Hindu	60	80	27	36
	Muslim	11	15	20	27
	Christian	4	5	28	37
	Any other	-	-	-	-
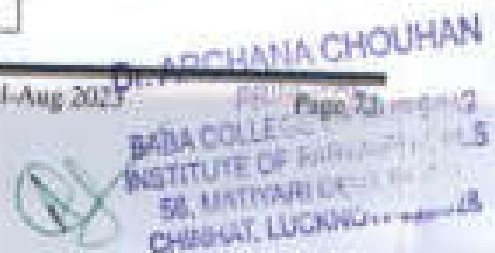
3.	Occupation of father				
	Unemployed	2	3	5	7
	Labourer/coolie	3	4	26	34
	Semi-skilled	17	23	32	43
	Technical	16	21	11	15
	Professional	37	49	1	1
4.	Occupation of mother				
	Unemployed	51	68	57	76
	Labourer/coolie	1	1	5	7
	Semi-skilled	8	11	4	5
	Technical	6	8	6	8
	Professional	9	12	3	4
5.	Monthly income (in rupees)				
	< 3,000	4	5	5	7
	3,000 – 4,000	6	8	13	17
	4,000 – 5,000	12	16	14	19
	> 5,000	53	71	49	57
6.	Family pattern				
	Nuclear family	70	93	63	84
	Joint family	5	7	12	16
	Extended family	-	-	-	-
7.	Education of father				
	Primary	1	1	14	17
	SSLC	18	24	16	21
	PUC/Diploma	16	21	29	39
	Graduate	31	41	15	20
	Postgraduate	9	12	1	1
8.	Education of mother				
	Primary	3	4	17	23
	SSLC	20	27	18	24
	PUC/Diploma	24	32	26	35
	Graduate	20	27	13	17
	Postgraduate	12	8	1	1
9.	Does anyone have heart disease?				
	Yes	8	11	5	7
	No	67	89	70	93
10.	Source of health information				
	Newspaper	16	21	20	27
	Magazine	13	17	11	15
	Books	18	24	18	24
	Television	28	37	26	35

The data presented in Table 1 shows the following:

Age

Majority of the students in urban area (87%) and rural area (85%) were in the age group of 14-15 years.

Religion

Majority of the students studying in urban area (80%) were Hindus whereas in rural areas only 36% were Hindus and 37% were Christians.

Occupation of father

Nearly half (49%) of the fathers of students studying in urban area were professionals whereas among students studying in rural area 43% were semi-skilled workers.

Occupation of mother

Most of the mothers of students studying in urban area (68%) and students studying in rural area (76%) were unemployed.

Income of the family

Family income of majority of the students studying in urban area (71%) and students studying in rural area (57%) was above Rs. 5,000.

Family pattern

Majority of the students studying in urban area (93%) and students studying in rural area (84%) belonged to nuclear families.

Education of father

In the urban area most of the subjects' fathers were graduates (41%) while in the rural area 39% had studied up to PUC or were diploma holders.

Education of mother

Many of the mothers of both the students studying in urban area (32%) and rural area (35%) had studied up to PUC or were diploma holders.

Family history of heart disease

Among the students studying in urban area 11% had family history of heart disease while among the students studying in rural area it was 7%.

Section II: Comparison of knowledge of risk factors of coronary vascular disease among students studying in urban and rural areas

This section deals with the analysis of knowledge score.

Table 2: Distribution of knowledge score of students studying in urban and rural areas

N = 75 + 75 = 150

Knowledge level	Range	Urban		Rural	
		f	%	f	%
Average	8-10	0	0	7	9
Good	11-13	47	63	68	91
Very good	14-16	28	37	0	0

Maximum score = 16

The data presented in Table 2 shows that majority of the subjects from the urban area (63%) and 91% from rural area had good knowledge score between the range of 11-13 and 37% students from urban area had very good knowledge score between the range of 14-16.

Table 3: Area-wise mean, mean percentage and standard deviation of knowledge score of students studying in urban areas

N = 75

Area	Max. score	Mean	Mean %	SD	Remarks
Meaning	2	1.420	71.0	0.573	Good
Risk factors	2	1.650	82.5	0.557	Very good
Causes	8	6.680	85.0	0.974	Very good
Symptoms	1	0.830	83.0	0.327	Very good
Prevention	3	2.560	85.0	0.499	Very good

Maximum score = 16

The data in Table 3 shows that the subjects had very good knowledge score in the areas of "meaning" (71.0%), "risk factors" (82.5%), "causes" (85.0%), "symptoms" (83.0%) and "prevention" (85.0%).

Table 4: Area-wise mean, mean percentage, and standard deviation of knowledge score of students studying in rural areas

N = 75

Area	Max. score	Mean	Mean %	SD	Remarks
Meaning	2	1.386	69.30	0.634	Good
Risk factors	2	1.480	74.00	0.577	Good
Causes	8	5.880	73.50	0.715	Good
Symptoms	1	0.693	69.30	0.464	Good
Prevention	3	2.173	72.43	0.554	Good

Maximum score = 16

The data in Table 4 and Figure 5 shows that the subjects had good knowledge score in the areas of "meaning" (69.3%), "risk factors" (74%), "causes" (73.5%), "symptoms" (69.3%) and "prevention" (72.43%).

Table 5: Mean, standard deviation, mean difference and 't' value of knowledge of risk factors of coronary vascular disease among students studying in urban and rural areas

N = 75 + 75 = 150

Group	Mean	SD	Mean difference	'T' value
Urban	13.146	0.818	1.526	10.292
Rural	11.620	0.818		Significant

tα 1.960 (P < 0.05)

The unpaired 't' test value as presented in Table 5 shows that there is significant difference between knowledge of risk factors of CVD among students in urban and rural areas (t_{148} = 10.292, P < 0.05). Hence the alternate hypothesis is accepted.

Table 6: Area-wise mean, standard deviation and 't' value of knowledge of risk factors of coronary vascular disease among students studying in urban and rural areas

N = 75 + 75 = 150

Variable	Urban		Rural		'T' value
	Mean	SD	Mean	SD	
Meaning	1.42	0.57	1.38	0.63	0.405
Causes	1.66	0.55	1.46	0.57	5.729*
Risk factors	6.58	0.97	5.88	0.71	1.870
Symptoms	0.88	0.32	0.69	0.46	2.847*
Prevention	2.55	0.55	2.17	0.49	0.486

(tαt= 1.960, P < 0.05) * = Significant

The unpaired 't' test value as presented in Table 6 shows that there is significant difference between the causes and symptoms since the calculated value is higher than the table value (t_{148} = 5.729, P < 0.05).No significant difference was found between meaning, risk factors and prevention of risk factors of CVD.

Section III: Comparison of identified risk for coronary vascular disease among students studying in urban and rural areas

This section deals with the analysis of risk for CVD among students studying in urban and rural areas.

Table 7: Distribution of students according to their identified risk for CVD

N = 75 + 75 = 150

Risk status score	Inference	Urban		Rural	
		Frequency	Percentage	Frequency	Percentage
1 – 30	Low risk	62	83	73	97
31 – 50	Moderate risk	13	17	2	3
51 – 70	High risk	-	-	-	-

Maximum score = 70

Table 8: Mean, standard deviation and 't' value of identified risk for coronary vascular disease among students studying in urban and rural areas

N = 75 + 75 = 150

Group	Mean	SD	Df	'T' value
Urban	25.80	4.420	148	3.353
Rural	23.53	3.839		Significant

t_{148} = 1.960, P < 0.05

The data presented in Table 8 shows that there is significant difference between the identified risk for CVD between students studying in urban and rural areas (t_{148} = 3.353, P < 0.05). Hence the alternate hypothesis is accepted.

Table 9: Area-wise comparison of identified risk for coronary vascular disease between students studying in urban and rural areas

N = 75 + 75 = 150

Areas	Urban		Rural		'T' value
	Mean	SD	Mean	SD	
Family history	0.720	1.44	0.77	1.63	0.032
BMI	1.017	1.64	0.72	1.07	1.458
Physical activity	8.250	2.67	6.03	2.73	4.726*
Food pattern	12.630	2.57	12.20	2.27	1.024
Habits	0.160	0.63	0.05	0.32	0.126
Expression of tension	2.840	1.13	2.89	0.98	0.277

t_{tab} = 4.273, P < 0.05 * = Significant

The data presented in Table 9 shows that there is significant difference between the physical activity (t_{tab} = 4.273, P < 0.05) of students studying in urban and rural areas. There is no significant difference in other areas such as family history of heart disease, BMI, food pattern and expression of tension between students from urban and rural areas.

Section IV: Correlation between knowledge on risk factors and identified risk for coronary vascular diseases among students from urban and rural areas

H_{01}: There will be no correlation between the level of knowledge and risk factors of coronary vascular disease among students from selected schools in urban and rural areas of Gwalior.

Table 10: Coefficient of correlation of knowledge on risk factors of CVD and identified risk for CVD among students from urban and rural areas

N = 75 + 75 = 150

Variable	Urban			Rural		
	Mean	SD	'r' value	Mean	SD	'r' value
Knowledge	13.14	0.982	0.091	11.62	0.818	0.159
Risk	25.80	4.420		23.53	3.830	

r_{tab} = 0.217, P < 0.05

The data presented in Table 10 shows that there is no correlation between knowledge of risk factors of CVD and identified risk for CVD in students studying in urban (r=0.091, P > 0.05) and rural areas (r=0.159, P > 0.05). Hence the null hypothesis is accepted.

Section V: Risk and selected factors of CVD among students from urban and rural areas

This section deals with the analysis and interpretation of selected factors of CVD among students studying in urban and rural areas.

Table 11: Mean, mean percentage score, and standard deviation of selected risk factors of CVD among students from urban and rural areas

N = 75 + 75 = 150

Risk factors	Max. Score	Urban			Rural		
		Mean	SD	Mean score	Mean	SD	Mean score
Family history	8	1.06	1.62	13	0.80	1.64	10
BMI	6	1.04	1.62	17	0.85	1.14	14
Physical activity	4	2.66	1.24	66	0.86	1.41	22
Exercise	4	2.08	1.47	52	1.57	1.39	39
Participation in sports	4	1.88	1.26	47	1.72	1.31	43
Use of leisure time	4	1.55	0.20	39	1.36	1.49	34
Food pattern 1	6	4.12	1.66	69	3.74	1.43	52
Food pattern 2	6	4.34	1.42	73	4.32	1.32	72
Junk food	6	4.48	1.42	75	4.16	1.41	69

The data presented in Table 11 shows the risk and selected factors of CVD. The mean percentage of family history of heart disease was 13% and 10%, body mass index – 17% and 14%, physical activity – 66% and 22%, exercise – 52% and 39%, participation in sports – 47% and 43%, use of leisure time – 39% and 34%, food

pattern 1 – 69% and 62%, food pattern 2 – 73% and 72%, and junk food – 75% and 69% for students studying in urban and rural areas respectively.

Table 12: Mean, standard deviation and 'r' value of risk and selected factors of CVD among students studying in urban and rural areas

N = 75 + 75 = 150

Risk factors	Urban			Rural		
	Mean	SD	'r' value	Mean	SD	'r' value
Family history	1.066	1.620	0.384*	0.800	1.643	0.377*
BMI	1.040	1.622	0.425*	0.853	1.147	0.036
Physical activity	2.660	1.244	0.285*	0.863	1.410	0.315*
Exercise	2.080	1.477	0.300*	1.573	1.369	0.240*
Participation in sports	1.880	1.261	0.345*	1.720	1.351	0.055
Use of leisure time	1.690	1.550	0.202	1.360	1.494	-180.000
Food pattern 1	4.120	1.660	0.327	3.746	1.434	0.158
Food pattern 2	4.340	1.409	0.428*	4.324	1.325	0.083
Junk food	4.480	1.427	0.183	4.166	1.412	0.013

$r_{75} = 0.232$, $P < 0.05$ * = significant

The data presented in Table 12 shows that there was significant correlation between the risk and selected factors such as family history ($r = 0.384$, $P < 0.05$), BMI ($r = 0.425$, $P < 0.05$), physical activity ($r = 0.285$, $P < 0.05$), exercise ($r = 0.300$, $P < 0.05$), participation in sports ($r = 0.345$, $P < 0.05$) and food pattern 2 ($r = 0.428$, $P < 0.05$) among the students studying in schools of urban areas. Among those studying in rural areas significant correlation was found between the risk and selected factors like family history of heart disease ($r = 0.377$, $P < 0.05$), physical activity ($r = 0.315$, $P < 0.05$) and exercise ($r = 0.240$, $P < 0.05$).

Section VI: Association between coronary vascular disease and selected variables

Table 13: Chi-square values showing the association between risk for coronary vascular disease and selected variables in students studying in urban and rural areas

N = 150

Variable	Urban			Rural		
	≤ median	≥ median	χ^2	≤ median	≥ median	χ^2
Age in years						
14 – 15	35	31	0.02	28	36	0.02
16 – 17	4	5		4	7	
Monthly income (in rupees)						
≥ 4,000	38	32	1.04	27	30	1.03
≤ 4,000	1	4		11	7	
Family history of heart disease						
Yes	6	1	1.60	4	1	1.47
No	36	32		29	41	

($\chi^2 = 3.84$, $P < 0.05$)

The data presented in Table 13 shows that chi-square computed between risk for CVD and selected variables like age, monthly income, and family history of heart disease were not found to be significant at 0.05 level of significance in students studying in urban and rural areas. Hence the alternate hypothesis is accepted.

DISCUSSION

Sample characteristics

Majority of the students in urban area (87%) and rural area (85%) were in the group of 14-15 years. The above findings of the study were consistent with a survey conducted among the adolescents in USA. The age of the children was 12 to 17 years. Majority of the students from urban area were Hindus (80%) and 37% from rural area were Christians. Majority of fathers (49%) of the students from urban area were professionals, whereas 43% fathers of students from rural areas were semiskilled workers. Most of the mothers of students from urban area (68%) and rural area (76%) were unemployed. Majority of the students' family income in urban area (71%) and rural area (57%) was above Rs. 5,000. Majority of the students from urban (93%) and students from rural (84%) belonged to nuclear families. In the urban areas most of the students' fathers were graduates (41%) while in the rural area 39% had studied up to

PUC or were diploma holders. Among the students from urban area 11% had history of heart disease, while among students from rural area it was 7%. The findings of a study conducted in Iowa to identify adolescents with adverse coronary risk factors level revealed that the history of parental CHD was rare. This result is consistent with the result of the present study. Television was the chief source of health information for students of both urban (37%) and rural areas (35%).

Section II

Students from urban schools were more knowledgeable (x_1 = 13.146) than those from rural schools (x_2 = 11.620) (t = 10.292, P < 0.05). The finding of a survey conducted among high school students in Michigan revealed that most of the students lack knowledge regarding the risk factors of CVD. This finding is contradictory to the findings of the present study. Another study conducted at Kansas showed that adolescents possess knowledge on cardiovascular risk factors. Majority of the participants agreed that obesity, smoking and high fat diet may lead to heart disease. These findings are consistent with the present study findings[25].

Section III

There is significant difference in identified risk factors of CVD among students from urban and rural schools (t=3.353, p<0.05). Area-wise comparison of risk factors of CVD among students from urban and rural areas showed that, there is a significant difference in physical activity (t=4.273, p<0.05) and no significant difference in areas like family history of heart disease, BMI, food pattern, habits and expression of tension. A similar study was conducted in Ludhiana among school students in urban and rural areas in the age of 11-17 years to evaluate the prevalence of hypertension and obesity. The mean BMI of hypertensive population in both urban and rural areas was significantly higher than the respective normotensive population. Mean BMI in urban normotensive group was 20.34 ± 3.72 kg/m², hypertensive group – 24.91 ± 4.92 kg/m²; BMI in rural normotensive group – 18.41 ± 3.41 kg/m², hypertensive group – 2.37 ± 3.71 kg/m² (P < 0.01). The findings were similar in a study conducted in Jaipur among adults. Prevalence of various factors was determined. The prevalence of tobacco use and smoking was significantly greater in urban (50.0%) as compared to rural groups (25.4%), while obesity, hypertension, diabetes, LDL, cholestrolemia were significantly greater in urban adults (P<0.05).

Section IV

There was no correlation between knowledge on risk factors of CVD and identified risk for CVD among students of urban and rural areas (r=0.217, P<0.05). The findings of a study conducted among adult Canadian population revealed similar findings. The result showed that people at greater risk of CVD were less able to recall important CVD risk factors. The odds ratio of reporting and association of the risk and knowledge varied between 0.16 for lack of knowledge to 0.55 for smoking.

Section V

The findings of the study showed significant correlation between the risk and selected factors such as family history (r=0.384, 0.377, P<0.05), physical activity (r=0.285, 0.315, P<0.05), exercise (r=0.300, 0.240, P<0.05) in urban and rural areas respectively. There is a significant correlation between risk and selected factors in students from urban area such as BMI (r=0.425 P<0.05), participation in sports (r=0.345, P<0.05) and food pattern (r=0.327, 0.428, P<0.05). The findings of the present study are similar to a study conducted in Karachi among subject aged between 15-45 years. The result revealed that smoking, use of ghee, lack of education (P<0.001 for each) and parental history of myocardial infarction (P<0.05) were all associated with higher risk of acute myocardial infarction[17].

Section VI

The findings of the study showed that there was no association between risk for coronary vascular disease and selected variables like age, monthly income, and family history of heart disease in students studying in urban and rural areas. The findings of a study conducted among school children in Turkey showed high risk for CVD in children of middle and higher socioeconomic status[23]. This finding is contradictory to the findings of the present study.

NURSING IMPLICATION
Nursing administration
The findings of the study could be utilised by the nursing administrators to provide quality care to the clients in the community. They should encourage the staff and the students to carryout similar research in different populations and different settings to find out the knowledge and risk factors of CVD, so that necessary nursing interventions can be carried out and the problem can be tackled. Nursing administrators should organise periodic in-service educational programmes for the staff and students in collaboration with both the community and the medical department for imparting knowledge on risk factors of CVD. The hospital should have a policy to provide health education material to all inpatients and outpatients. The nurses can encourage higher authorities to conduct outreach programmes in the community to improve the knowledge of the clients on CVD.

Nursing education

The nurse educators have the responsibility to update the knowledge of the nursing personnel on the knowledge of risk factors of CVD. The findings of a study can serve as guidelines for the nurse educators for planning and conducting educational programmes for the student nurses regarding the assessment of the risk factors of CVD. The curriculum should lay emphasis on the problem of obesity-related cardiovascular diseases in childhood and its consequences in adulthood. These students when posted in the wards or in the community should be able to give health education to the patients, students, teachers and parents regarding the risk factors of CVD, especially related to obesity. The nursing students should be made aware of their role in health promotion and disease prevention. The students should be motivated to plan innovative approaches to provide health education in different settings and in the community.

Nursing practice

The nurse plays an important role in healthcare delivery system. Primordial prevention is one of the important components because the cause of CVD is multifactorial. One of the modes of primary prevention is health promotion achieved through health education that brings about change in lifestyle and behaviour. The nurse has a major role in the preventive aspects. The nurse should be able to explore the risk factors of CVD so that action can be taken to prevent and reduce the disease burden. The study findings will help the nurse to organise community health education programmes and school awareness programmes bringing out educational and audio-visual material regarding risk factors of CVD and associated problems.

Nursing research

The findings also emphasise an extensive need to evaluate the effectiveness of planned awareness programme on risk factors of CVD among school students. The nurses could conduct longitudinal study on the prevalence of CVD from childhood to adolescent period. The student can be guided to evaluate the various determinants of risk factors of CVD in hospitals and at the community level. The hospitals and community should allocate the budget, personnel and facilities for research on risk factors on CVD and its prevention.

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A Pre-Experimental Study to Assess the Effectiveness of Structured Teaching Programme on Knowledge Regarding Prevention of Burns and Electrocution among GNM II Year Students in Baba Educational Society, Institute of Paramedical, College of Nursing, Lucknow

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ABSTRACT

The present study has been conducted to know the effectiveness of structure teaching program (STP) on knowledge regarding prevention of Burns and Electrocution among GNM II Year students at various colleges of Nursing of Lucknow. The selection of sample was done through convenient sampling. The sample size was 30. The method of data collection was through demographic variables and self-structured knowledge questionnaire regarding prevention of Burns and Electrocution among GNM II Year students. Result a show there is structured teaching program was effective in improving the knowledge regarding prevention of Burns and electrocution.

KEYWORDS: knowledge, Structure Teaching Program, Effectiveness, Burns and Electrocution, Prevention

INTRODUCTION

"Burns" is defined as one of the most devastating conditions encountered in the medicine. The injury represents an assault on all aspects of the patients from the physical to the psychological. The visible physical and invisible psychological scars are long lasting.

A burns is defined as an injury to the skin or other organic tissue caused by thermal trauma, it occurs when some or all of the cells in the skin or other tissues are destroyed by hot liquids (scalds), hot solids (contact burns), or flames (flame burns). Injuries to the skin or other organic tissue due to

radiation, radioactivity, electricity, friction or contact with chemicals are also considered as burns.

"Burn can be defined as any injury that results from the direct contact or exposure to any thermal, chemical, electrical or radiation source".

Burns may be distinguished and classified as thermal burns, inhalational burns, first degree or superficial burns, second degree or partial-thickness burns, third-degree or full-thickness burns. Chemical burns electrical burns, radiation burns.

"An electrocution is defined as an Injury or death resulting from the passage of electric current through the body". "Electrical injuries are when high-energy current travels through the body due to contact with an electrical source. Injuries occur due to either the flow of current through the body, arc flash, or clothing that catches fire. With the former two, the body converts electricity to heat, which results in a thermal burn. It is important to consider that the outward appearance of an electrical burn does not accurately predict the true extent of the injury, as internal tissues or organs may be much more severely burned than the skin.

According to data collected from the national burn information exchange reveal that 75% of all burn injuries result from the actions of the victim, with many of these injuries occurring in the home environment. Contact with scalding liquids is the leading cause of burn injury. Toddlers suffer more from scald injuries than any other age group. Scald injuries are frequently the results in the performance of everyday tasks such as bathing, cooking, overturned coffeepots, overheated foods, liquids cooked in micro wave ovens and hot tap water have been identified as specific causes.

Approximately 10% of residential fire deaths are caused by children playing with matches or other ignition sources. Additionally faulty chimney's, flue vents, fixed heating units, fireplaces, central heating systems. Wood burning stoves, as well as human error, all have been implicated. Burns in children under the age of five year old at higher risk of hospitalization often occur from a mixture of curiosity and awkwardness. In children under the age of four years, the level of motor development does not match the child's cognitive and intellectual development and injuries can thus occur more easily.

Clinical features of burns includes, First degree partial thickness burns, Second degree partial thickness burns, Third degree full thickness burns, Fluid and Electrolyte imbalance, Alterations in Respiration, Decreased cardiac output, Substantial pain, Altered level of consciousness, Psychological

alterations, withdrawal, suppression. Burns on the skin surface where the energy has entered and exited the body and confused condition Problems with sight Paralysis (from disrupted nerve pathways) Irritable or restless, whether conscious or unconscious weak, irregular, or absent pulse damage to internal muscles and tissues.

The first and most important step in management of burn and electrocution is helping someone who has suffered from electrocution is to promptly begin DR ABCD. Danger - Check for any dangers surrounding the victim. If power lines are down both first aiders and by standers should stay at least 8-10 meters away from the lines. Make sure all power sources are turned off. Never touch the casualty with bare hands unless health care giver are sure that there is no danger to his/her. Response - Assessment of the victims response by "squeeze and shout" Airway-Open the airway and look for signs of life Breathing-Give 2 initial rescue breaths Compression- Give 30 compressions followed by 2 breaths Defibrillation - Attach the AED and follow the prompts initial management includes assessment and maintenance of following parameters with ABCDE approach: Airway, Breathing, Circulation, Disability and Exposure. In all cases, tetanus prophylaxis should be administered. Wound care. Systemic antibiotics are given to treat and prevent wound infections'. Proper nutrition with adequate supply of energy and proteins should be given to patients. Specialized care may be provided during healing process in the form of skin grafts or surgical release of contractures due to scars.

It necessary to remove the victim from the source or to break the current if conditions allow and then immediately arrange for transport to a hospital to be treated properly. When treating Electrical and lightening burns it is important to: Avoid or neutralize electrical and other dangers Conduct a primary survey. Arrange medical aid as required Remove victim to a safe environment Remove all jewellery from the affected area Provide oxygen to victims if necessary apply a dry sterile dressing to the wound.

Prevention of burns and electrocution may involve: Do not allow children to play with any electrical cord. Limit use of extension cords and be sure the cord is rated for the current (measured in amps) that will be drawn by the device being powered. Use outlet covers to protect infants from exploring electrical outlets. Update old, ungrounded electrical outlets to grounded (3-prong) systems. Replace outlets near any water (sink, tub) with fused (GFCI) outlets. In children older than 12 years most electrical injuries result from exploring and activities around high-power systems. Explain to adolescent children that they

should not climb on power towers, play near transformer systems, or explore electrified train rails or other electrical systems. Enclose fires and limit the height of open flames in domestic environments. Cooking on floor should be avoided. Restrain playing of toddlers in kitchen/cooking area. Watch the child constantly especially around gas burners, stoves, ovens, microwaves, heaters and other appliances. Turn pot handles toward the back or centre of the stove to prevent tipping. Never cook while holding a child. Carefully use electrical appliances and switch off all electrical appliances when not in use. Avoid use of unauthorized gas cylinders & kerosene stove/Chula. Use safe stoves and lamps. Avoid loose clothing while cooking. Tie up loose saree end (pallu) or stole (chunni) properly. Never hold a cup of hot liquid near infant/toddlers. Check the temperature of water before bath. Beware of high tension wires passing over terrace or balcony and do not keep open electrical wires at home. Supervise children while lighting fire crackers. Do not hold the cracker while bursting. Don't point the burning fireworks towards you/others. Don't fiddle with un-burnt crackers. Always light or burst crackers in open area /ground. Secondary Prevention; Both pre-hospital and hospital care play an important role in the management of burn patients by preventing deaths and disability.

NEED OF THE STUDY:

Burns is a second leading cause of accidental death in children.

According to the WHO global burden of disease estimates for 2004, just over 3,10,000 people died as a result of fire-related burns, of which 30% were under the age of 20 years. Fire related burns are the 11th leading cause of death for children between the ages of less than 5 years. Overall children are at high risk for death from burns, with a global rate of 3.9 deaths per 1, 00,000 populations. Among all people globally, infants have the highest death rates from burns. Globally nearly 96,000 children under the age of 20 years were estimated to have been fatally injured as a result of a fire related burn in 2004. WHO conducted a study on facts about burns. In this, Burns is the fourth leading cause of unintentional injury death in United States of America. Annually, close to 2.5 million people are treated for burn injuries, out of which 10,000 are died & 60,000 to 1,00,000 require hospitalization.

Children are at greatest risk of death from burns. Burns are one of the most neglected areas of health care in developing countries. These countries have 90% of global burn injuries with 70% of these injuries occurring in the children .In India more than 10,000 burn associated with deaths over a 1 million

non-fatal moderate to severe burns occur each year. Burns constitute a major health problem in India.

A very high mortality in major burns was noted two decades ago. The record of all burn patients admitted to the general hospital, Sangli, Maharashtra, India. The report says that an annual mortality rate of 1,00,000 to 1,40,000. This staggering incidence is largely due to illiteracy, poor living condition, neglect of children and social customs that are unique in India. Overall Mortality rate is 68.5%. A Population Survey of 30,554 people in New Delhi by WHO [2003] revealed the mortality and incidence due to burns to be 10/100000 and 955/100000 Population per year, Respectively, During 2001, 32509 persons died in India due to burns.. The death rate in low income and middle income countries was eleven times higher than that in high income countries, 4.3 per 1,00,000 as against 0.4 per 1,00,000. Most of the deaths occur in poorer regions of the world among the WHO regions of Africa and South East Asia and the low income and middle income countries of the eastern Mediterranean region.

A survey in India found that only 22.8 % of patients had received appropriate first aid for their burns. The remainder had either received no first aid or else inappropriate treatment such as raw eggs, toothpaste, mashed potato or oil being rubbed into the burn. Education on The effect of immediate application of cool water to burns should be promoted widely as an affective first aid treatment.

Electrical burns are associated with significant morbidity and mortality, which are usually preventable with simple safety measures. An observational retrospective study of non-lightening electrocution deaths was conducted in Lucknow, India between 2008 and 2012. Out of 83 deaths, 71 investigated were accidental and the rest were suicidal. The age range was 11 months to 75 years with a mean age of 28.9 ± 12.5 years. About 65 (78%) were males and the rest were females. The upper extremity was the most frequently involved contact site in 51 deaths (61%). No electrical burn marks were present in 10 (11.9%) cases. Work-related accidents were responsible for 49 cases of deaths (59%) and home accidents for 19 cases of deaths (22.9%). Deaths were caused most frequently by touching an electrical wire (35 cases, 41.9%). There was an increase in electrocution deaths in the months of July–September (32 cases, 39%). About 50 cases (60.7%) were dead at the scene of the accident and 33 cases (31.9%) were dead on arrival in the hospital. The unique findings of this study include 12 cases (14.4%) of suicidal electrocution and a high rate of work-related accidental electrocution. Death rates

from electrocution among all medico-legal deaths were found to be lower in this study than in previous reports, most of them were work-related and preventable. Workers and their employers should be educated to avoid such accidents with safety measures.

In high income countries children under the age of 5 years old at the highest risk of hospitalization from burns. Nearly 75 % of burns in young children are from hot liquid, hot tap water or steam, contact burns from radiators or hot water pipes.

OBJECTIVES-

1. To assess the existing knowledge regarding prevention of burns and electrocution among GNM II year students in Baba Educational Society, Institute of paramedical, College of Nursing, Lucknow.

2. To evaluate the effectiveness of structured teaching programme on knowledge regarding prevention of burns and electrocution among GNM II year students in Baba Educational Society, Institute of paramedical, College of Nursing, Lucknow .

3. To find out the association between the pre-test knowledge score with their selected demographic variable.

OPERATIONAL DEFINITION:

Assess: It is the organized, systemic and continue process of collection of data and the statistical measurement of knowledge regarding prevention of burns and electrocution by using Self-Structure Questionnaire.

Effectiveness: Effectiveness refers to increase the level of knowledge regarding prevention of burns and electrocution among GNM II year after implementing structured teaching programme.

Knowledge: This study refers to understanding and awareness of the GNM II year students regarding prevention of burns and electrocution.

Structure teaching programme: Structured teaching programme refers to a pre-plan session conduct to impart knowledge regarding prevention of burns and electrocution to the selected GNM II year students.

Burn: Burn is define as an injury to the skin or other organic tissue caused by thermal trauma that by heat, friction, electricity, radiation, or chemicals.

Electrocution: "An electrocution is an Injury or death resulting from the passage of electric current through the body".

Prevention: It refers to be taken for the avoidance of burns and electrocution.

HYPOTHESIS:

Ho - There is no significant difference between pre-test and post-test scores on knowledge regarding prevention of burns and electrocution among GNM II year students in Baba Educational Society, Institute of paramedical, College of Nursing, Lucknow.

H_1 - There is significant association between pre-test and post-test score knowledge regarding prevention of burn and electrocution among GNM II year students in Baba Educational Society, Institute of paramedical, College of Nursing, Lucknow.

RESEARCH APPROACH

According to Creswell "Research approach comprises strategies and methods for research that extends the decision from general assumption through methods of data gathering and reasoning".

The research approach used for this study is quantitative research approach.

RESEARCH DESIGN

Ahuja (2002) defines that is "A master plan which explain the techniques the method for assembling and scrutizing the needed information".

The research design is the master plan specifying the methods and procedures for collecting and analysing the needed information in a research study.

The research designs selected for this study was pre-experimental one group pre-test post-test design.

RESEARCH SETTING

Setting is the physical location and conditions in which the data collection takes place in study.

The research study was conducted at Baba Educational Society, Institute of Paramedical, College of Nursing, Lucknow.

POPULATION

Polit and Hungler (2000) defined that "Population is the complete aggregation of cases that meets an intended set of criterion".

Population is the set of people or entities to which the results of a research are to be generalized.

The population of the study was GNM II year students.

TARGET POPULATION

A target population consists of the total number of people or objects which are meeting the designated set of criteria. The target population was GNM II year students of Baba Educational Society, Institute of Paramedical, College of Nursing, Lucknow.

ACCESSIBLE POPULATION

Accessible population is the aggregate of cases that conform to designated criterion and are also accessible as subjects for a study.

Accessible population was 30 students of GNM II year of Baba Educational Society, Institute of Paramedical, College of Nursing, Lucknow.

SAMPLE SIZE

A proportion or subset of the population is known as sample.

Sample is representative unit of a target population. The sample size for the present study was 30 students of GNM II year

CRITERIA FOR SAMPLE SELECTION

Inclusion criteria: This includes

➤ Students study at GNM II year of Baba Educational Society, Institute of Paramedical, College of Nursing, Lucknow.

➤ Willing to participate in the study.

➤ Available during the period of data collection

➤ **Exclusion criteria:** This includes–

➤ Students who students studied in GNM I year

SAMPLING TECHNIQUE

Convenient sampling technique

RESULTS

A total of 30 students were selected from GNM II Year at Baba educational society institute of paramedical College of Nursing Lucknow.

Table No: 1.1 Frequency and percentage distribution of structured teaching programme on knowledge regarding Prevention of burns and electrocution based on demographic variables.

S. No.	Demographic variables		Frequency	Percentage%
1	Age in year	18	1	3.333
		19	5	16.666
		20	12	40
		21 and above	12	40
2	Staying at	Hostel	4	13.333
		Home	20	66.666
		Rent	6	20
3	Previous exposure to information regarding prevention of burns and electrocution	Yes	26	86.666
		No	4	13.333
4	Staying with	Parents	17	56.666
		Friends	8	26.666
		Alone	1	3.333
		With Relative	4	13.333

The majority of GNM II Year students (40%) belong to the 20 year and 21 year and above age group, (66.66%) belong to the staying at home, (86.66%) have previous exposure to information regarding prevention of Burns and Electrocution, (56%) students staying with parents.

Table no.1.2 Distribution of overall knowledge score

SCORE	PERCENTAGE	LEVEL OF KNOWLEDGE
0-10	0-33%	Inadequate knowledge
11-20	34-66%	Moderate knowledge
21-30	Above 66 %	Adequate knowledge

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Table No: 1.3 Chi-square Test Showing the Association between Pre-Test Knowledge Score of students with their selected demographic variables.

Selected demographic variables	Category	Knowledge level mean			DF	Table value	Obtained value	Significance
		Inadequate	Moderate	Adequate				
Age in year	18	0	1	0	6	12.59	6.349	NS
	19	0	5	0				
	20	3	8	1				
	21 and Above	4	5	3				
Staying at	Hostel	1	3	0	4	9.49	1.24	NS
	Home	4	13	3				
	Rent	2	3	1				
Previous exposure to information regarding prevention on burn & electrocution	Yes	7	15	4	2	5.99	2.668	NS
	No	0	4	0				
Staying with	Parents	5	11	1	6	12.59	8.221	NS
	Friends	2	3	3				
	Alone	0	1	0				
	With relatives	0	4	0				

N=30   NS = Not significant   S=Significant

Table no:1.3 shows that there is no significant association between pre-test knowledge score and selected demographic variables of students such as age, staying at, previous exposure to information regarding prevention of Burns and Electrocution, staying with.

DISCUSSION

The majority finding of this study include -(40%) belong to the 20 year and 21 year and above age group, (66.66%) belong to the staying at home, (86.66%) have previous exposure to information regarding prevention of Burns and Electrocution, (56%) students staying with parents. A majority (70%) of students had adequate knowledge score in Post-test as compared to the pre-test, the majority (30%) had moderate knowledge score in the post-test as compared to the pre-test and only (0%) had inadequate knowledge.

Posttest mean score (22.5) was higher than the mean Pretest knowledge score (14.3) the difference is (8.2). The computed t"value (t=29), table value (t_{29}= 2.45) at 0.05 level of significance. Obtained value is 6.532. so ,the obtained value is higher than table value. Hence, the research hypothesis is accepted. It was inferred that the mean difference between pre-test and post-test knowledge score was statistically significant.

A Chi-square test and t-test were used to find out the association between pre-test and post-test knowledge score and selected demographic variables.

The mean difference between pre-test and post-test knowledge score of prevention of Burns and Electrocution among GNM II Year students, was found to be statistically significant (t=29, P<0.05).

The results clearly showed that the structure teaching program was useful in improving the knowledge of GNM II Year students regarding prevention of Burns and Electrocution. The gain in knowledge was the effect of Structure Teaching Program and the result was highly significant at 0.05 levels.

NURSING IMPLICATION
Nursing Education

In-service education is to be provided to the nursing personnel at various levels to make them aware on burns and electrocution and its prevention which will enable them to provide health education to the nurses and society on prevention of burns and electrocution and its management. There is a need for nurses to develop health- teaching material for teaching the parents. Health education should be a part of the job description of various categories of nursing personnel. Nursing curriculum should include more projects on prevention of burns and electrocution. Workshops, seminars and symposium can be organized were parents, school teachers, and staff

nurses on identifying the problems leading to prevention of burns and electrocution.

Nursing Administration

The administrator should facilitate the implementation of structured teaching programme to make aware GNM II year students about burns and electrocution and its management and prevention. In community nurses ratio should be increased, so that they can provide knowledge about prevention of burns and electrocution and its management and improve the practices regarding burns prevention and management among GNM students. Implementing more nursing staffs and provision of knowledge will increase level of prevention and managements of burns and electrocution. Community health nurses should visit the home to find out the homely practices of community peoples. In–service education for the staff regarding prevention of burns and electrocution should be conducted to update their knowledge in this area. In each session they should assess their level of knowledge and skill before and after the continuing education programme, and evaluate the effectiveness as well as the problem they face. The staff should be encouraged to prepare teaching materials and audio visual aids regarding various health related topics and display them in the wards, OPD and community settings. Health administration should make the education department aware of the prevailing health problems and assign the staff for conducting the structured teaching programme in hospital, schools and the community in general.

There should be necessary health education, material and administrative support provided to conduct health programme. Adequate funds should be provided to develop health teaching materials and make them accessible to all the staff in the hospital as well as in the community.

Nursing Practice

Students of GNM II year knowledge deficit indicates the need for organizing health education session to them regarding prevention of burns and electrocution and it management by the nurse both in hospital and community level So that, this will help in creating awareness among community people about prevention of burns and electrocution which in turn can promote the healthy society.

Nursing Research

Instructional materials can be developed in order to increase the awareness among society peoples on prevention of burns and electrocution.

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