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Educating Nurses about Safety measures in Handling Chemotherapy Drugs: A Pre-experimental Study

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Abstract

Background: Chemotherapy is used to treat cancer. Occupational exposure to chemotherapy drugs produce many side effects and continue to be a hazard in health care setting. It is therefore highly important for oncology nurses to apply proper drug handling technique and procedures with great care to prevent such exposure.

Objectives: 1. To assess the level of existing knowledge of student nurses regarding safety measures in handling of chemotherapy drugs. 2. To determine the post-test level knowledge of student nurses regarding safety measures in handling of chemotherapy drugs. 3. To evaluate the effectiveness of structured teaching programme on knowledge regarding safety measures in handling of chemotherapy drugs. 4. To associate the post-test knowledge scores of the student nurses regarding safety measures in handling of chemotherapy drugs with their selected demographic variables.

Design: Pre-experimental one group pre test post test design was selected for the study. Fifty 2nd year GNM students were selected through non-probability convenience sampling technique. A self-structured knowledge questionnaire was used to collect the data.

Result: Findings of the study revealed that 36(72%) participants had inadequate knowledge & 13(26%) participants had moderately adequate knowledge in pre test. 28(56%) of the participants had adequate knowledge and 22(44%) had moderately adequate knowledge in post test. The obtained "t" value -12.22 was found to be highly significant at p<0.05 level.

Conclusion: Teaching programmes are effective in improving the knowledge and hence must be conducted at regular intervals to retain the information.

Key words: Knowledge, Safety measures, Chemotherapy drugs

Introduction

There are many diseases that are affecting our

health and can lead to death too. The World Health Organization (WHO) reports non-communicable

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diseases such as cancer is the leading cause of death worldwide.^[1]

Cancer is a group of diseases involving abnormal cell growth with the potential to invade or spread to other parts of the body. These contrast with benign tumors, which do not spread. Over 100 types of cancers affect humans.^[2] Possible signs and symptoms include a lump, abnormal bleeding, prolonged cough, unexplained weight loss, and a change in bowel movements. Tobacco use is the cause of about 22% of cancer deaths. Another 10% are due to obesity, poor diet, lack of physical activity or excessive drinking of alcohol. In the developing world, 15% of cancers are due to infections such as *Helicobacter pylori*, hepatitis B, hepatitis C, human papilloma virus infection, Epstein-Barr virus and human immunodeficiency virus (HIV).^[3]

According to WHO, the most common cancer cases in 2020 were Breast Cancer (2.26 million cases), Lung Cancer (2.21 million cases), Colon and Rectum Cancer (1.93 million cases), Prostate Cancer (1.41 million cases), Skin Cancer (1.20 million cases) and Stomach Cancer (1.09 million cases).^[4]

According to estimates from the international agency for research on cancer (IARC), in 2018 there were 17 million new cancer cases and about 9.5 million cancer deaths worldwide. By 2040 the global burden is expected to grow to about 27.5 million new cancer cases and about 16.3 million cancer deaths simply due to the growth the aging of the population. The future burden will probably be even larger due to increasing prevalence of factors that increase risk such as smoking, unhealthy diet, physical inactivity.^[4]

Cancer treatment is evolving at a very rapid rate through newer discoveries. The most common approaches for treatment of cancer include chemotherapy, radiation therapy or surgery or combination of these approaches. Chemotherapy is the most common method used to treat various cancers in which cytotoxic drugs are used to destroy the cancerous cells. Although these drugs are very effective in treating cancers, they have potential threat to normal cells as well, as they interfere with cell division.

Many times the health care professionals handling these drugs fail to follow the safety guidelines while

handling these drugs and hence are more vulnerable to the toxic effects of these cytotoxic drugs. Nursing personnel's play a significant role during chemotherapy preparation and administration.^[5]

Therefore, the present study was undertaken with the aim to educate the nursing students in their early education period, so that they can practice the safety measures while handling chemotherapy drugs during their professional practice of nursing.

Objectives:

The objectives of this study were as follows

1. To assess the level of existing knowledge of student nurses regarding safety measures in handling of chemotherapy drugs.
2. To determine the post-test level knowledge of student nurses regarding safety measures in handling of chemotherapy drugs.
3. To evaluate the effectiveness of structured teaching programme on knowledge regarding safety measures in handling of chemotherapy drugs.
4. To associate the post-test knowledge scores of the student nurses regarding safety measures in handling of chemotherapy drugs with their selected demographic variables.

Materials and Methods

This study was carried out using a pre-experimental one group pre-test post-test design. A Non-probability, convenience sampling technique was used to select the sample of 50 2nd year GNM students. The study was carried out after obtaining the informed consent from study participants by assuring that the responses obtained from them would be kept confidential and would be used only for the study purpose. And also the ethical clearance was obtained from the institutional ethical committee to conduct the study. Pre-tested structured knowledge questionnaire was distributed to the study participants and were provided with 60 minutes to answer the questions including the demographic data. Following this, a structured teaching program was conducted for the participants regarding safety measures to be followed while handling chemotherapy drugs and the toxic effects these drugs may have on health for 60 minutes. Post-test was

conducted after 1 week to know the effectiveness of teaching program on level of knowledge regarding safety measures in handling chemotherapy drugs using afore-mentioned questionnaire. Responses were scored as 1 point for correct answer and 0 point for incorrect answer. The obtained data were entered in Excel Sheet and analyzed using descriptive and inferential statistics.

Results and interpretation

This investigation was carried among 50 students studying GNM course intended at determining

their knowledge regarding safety measures in handling chemotherapy drugs. Table 1 revealed the sociodemographic variables, where majority of male 6 (86%) were >20 years old, and majority of female 21 (49%) were between 19-20 years age group. Majority of the participants 23(46%) were >20 year old, 46(92%) belonged to Hindu religion, 41(82%) participants were from nuclear family, 26(52%) were residents of rural area and 45(90%) participants did not have any history of cancer in their families. 33(66%) of the participants gained information from books.

Table 1: Frequency and percentage distribution of nursing students according to their demographic variables n=50

Demographic Variable	Frequency	Male	%	Female	%
Age					
17-18	2	1	14	1	2
18-19	4	0	0	4	9
19-20	21	0	0	21	49
>20	23	6	86	17	40
Total	50	7	100	43	100
Religion					
Hindu	46	7	100	39	90
Muslim	2	0	0	2	5
Christian	2	0	0	2	5
Total	50	7	100	43	100
Type of Family					
Nuclear	41	5	71	36	84
Joint	9	2	29	7	16
Total	50	7	100	43	100
Place of residence					
Rural	26	5	71	21	49
Urban	24	2	29	22	51
Total	50	7	100	43	100
Family history of cancer					
Yes	5	2	29	3	7
No	45	5	71	40	93
Total	50	7	100	43	100

COMPARISON BETWEEN ADEQUACY LEVEL OF PRE TEST AND POST - TEST SCORE

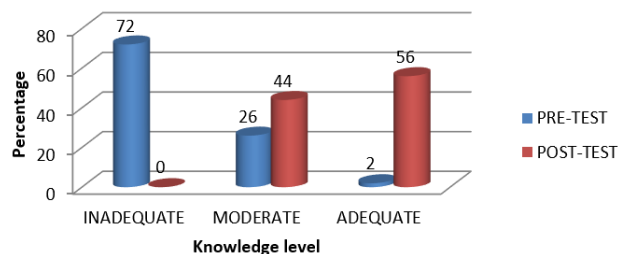


Fig 1: Comparison between adequacy level of pre test and post - test knowledge scores

Fig. 1 shows the responses obtained from study participants regarding level of knowledge demonstrated significant changes between the pre-test and post-test scores. Notable improvement in post test level of knowledge regarding safety measures in handling chemotherapy drugs indicated the effectiveness of teaching programme.

Table 4: Association of post-Test knowledge scores of the nursing students regarding safety measures in handling chemotherapy drugs with their selected demographic variables. n=50

Demographic Variable	No. of subjects	Post-test score			p-Value
		<14	15-19	≥20	
Age					
17-18	2	0	1	1	0.993 NS
18-19	4	0	0	4	
19-20	21	0	11	10	
>20	23	0	10	13	
Total	50	0	22	28	
Gender					
Male	7	0	3	4	0.998 NS
Female	43	0	19	24	
Total	50	0	22	28	
Religion					
Hindu	46	0	21	25	0.598 NS
Muslim	2	0	0	2	
Christian	2	0	1	1	
Total	50	0	22	28	
Type of Family					
Nuclear	41	0	17	24	0.743 NS
Joint	9	0	5	4	
Total	50	0	22	28	

Table 3: Level of knowledge regarding biomedical waste management (n=50)

Level of knowledge	Mean	SD	Paired "t" value	p- value
Pre test	12.08	4.22	-12.22***	p<0.00001
post test	19.98	1.77		

***Highly Significant at p<0.05

Table 3 reflects the mean and standard deviation of knowledge scores of nursing students regarding safety measures in handling chemotherapy drugs. Study findings indicated that there was significant increase in mean scores of knowledge responses from pre-test to post-test with 12.08 ± 4.22 and 19.98 ± 1.77 , respectively, which indicated a statistically (significant p<0.05) increase in knowledge scores after the intervention.

Continue.....

Place of residence					
Rural	26	0	13	13	0.673 NS
Urban	24	0	9	15	
Total	50	0	22	28	
Family history of cancer					
Yes	5	0	1	4	0.377 NS
No	45	0	21	24	
Total	50	0	22	28	
Source of knowledge					
Books	33	0	13	19	0.907 NS
Internet	16	0	8	9	
Television	1	0	1	0	
Total	50	0	22	28	

Table 4 shows, the association of post knowledge score with demographic variables. Findings indicated that, there was no statistically significant association of post test knowledge scores with demographic variables like age, gender, religion, type of family, place of residence, family history of cancer and source of knowledge, as the calculated p- value was not < 0.05 (p- value <0.05 is considered significant).

Limitations of the study

1. Sample size was limited to 50 participants
2. Study included only students studying 2nd year GNM course.

Recommendations

1. Study can be done on larger sample size.
2. Comparative study can be conducted using different teaching methods.
3. Study can be done with control group.

Discussion

The current study showed that, in pre test 72% of the participants had inadequate knowledge level, 26% participants had moderately adequate knowledge and only 2 % participants had adequate knowledge. After undergoing teaching programme, in post test, 56% participants exhibited adequate knowledge, 44% participants had moderately adequate knowledge and no participant was found have inadequate knowledge about safety measures in handling chemotherapy drugs. Present study findings were consistent with many research studies.

A descriptive study conducted on 40 staff nurses revealed that 40% of the participants had inadequate knowledge about safety measures to be followed while handling of chemotherapy drugs.^[6] A study conducted by Mishra et.al., reported that the mean pre test knowledge score 17.5 ± 2.28 was enhanced 27.03 ± 1.73 in post test and the pre test practice score 9.13 ± 1.52 was improved to 13.8 ± 1.09 in post test indicated the effectiveness of teaching programme.^[7] A descriptive cross sectional study conducted by Devi. S, et al. on nursing professionals revealed that 55% of the participants had poor knowledge level and 46.7% demonstrated mild positive attitude towards safe handling of chemotherapy drugs.^[8]

Dhiaa. A.H, et al reported that the staff nurses have inadequate knowledge regarding chemotherapy drugs and its safe chemotherapy administration.^[9] A study conducted by Naglaa. E. M, et al. showed that there was a significant difference between mean pre test and mean post test scores of knowledge, practice and attitude of nurses regarding safe handling of chemotherapy drugs.^[10] Lee. J. L, et al. conducted a cross sectional survey on 106 nursing staffs and found that the mean knowledge score was 58.46 ± 12.88 . It was also found that there was no significant correlation between their knowledge with their professional experience and the experience in handling chemotherapy drugs indicating the need for more training and educational programmes.^[11] In a study by Hanafi. S, et al. it was shown that nurses lack the knowledge regarding adverse effects of exposure to chemotherapy drugs and the safety

precautions to be followed and hence the need for educational programmes.^[12] A cross sectional study carried out by Hosen. M. S, et al reported that nurses lack adequate knowledge regarding the personal safety equipments used while handling chemotherapy drugs as they have not undergone any training programme about the same.^[13] A study conducted by Arul. PA revealed that 87.5% of the participants had moderately adequate knowledge & 9.4% had adequate knowledge in pre test. In post test 68.75% of the participants had adequate knowledge & 31.25% had moderately adequate knowledge.^[14]

Conclusion

The authors concluded that the study participants had inadequate knowledge about safety measures in handling chemotherapy drugs. Structured teaching program in the present study was found effective in improving the knowledge of the participants. Hence, conducting more educational programs, health talks, seminars and workshops on safe preparation and administration of chemotherapy drugs will help improve the knowledge of nurses. The nursing curriculum must include safety guidelines about handling chemotherapy drugs in order to educate the nursing students.

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Knowledge on Use of Diaper and Its Impact on Child Health among Mothers of Infants

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Abstract

The present study aims to assess the knowledge on use of diaper and its impact on child health among mothers of infants. The objectives of the study was to assess the knowledge on use of diaper and its impact on child health among mothers of infants and to find out the association between the knowledge on use of diaper and its impact on child health among the mothers of infants and selected socio personal variables. Non experimental descriptive study design was used in the study. The data was collected by using a semi structured questionnaire. The collected data was analysed using descriptive and inferential statistics. The result shows that out of 50 samples majority of the children are of age range 0-2 months, 52% were male children and was first born (54%). Majority of the sample are at age group 26-30 years (36%) , 58% samples are educated upto graduate level, 42% of samples were housewives and 48% have family income above 30,000, 94% of children were using disposable diapers ,42% of children using diapers for 3-4 hours and 80% children had no exposure to diaper rash.

Among the samples, 56% of mother had moderate knowledge, 34% of mothers had poor knowledge and, 10% of mothers had good knowledge. There is significant association between the age of mother and occupation of mother and there is no association between age of child, sex of child, birth order of child, education of mother, income of family, type of diaper used, duration of diaper used, previous exposure to diaper rash.

Key words: Knowledge on use of diaper, impact on child health, mothers of infants.

Introduction

There is nothing as powerful as mother's love and nothing as healing as a child's soul"

The infants are unique when compared with older children and adults which make them highly susceptible to severe dermatological disorder. Around the world more than 134 million babies are born each year. Now a days the demand for commercial diapers has increased due to its advanced technology and comfort felt by mothers.

Background of the study

Diaper need for babies has been in practice since decades to prevent soiling and for social convenience. The main purpose of wearing a disposal diaper is to absorb moisture of the baby's excretions so that the baby doesn't become immediately fussy and doesn't wakeup due to dampness. The commonly used diapers are disposal diapers, cloth diapers, training nappies, biodegradable diapers and others(regular diapers, super/ultra absorbent diaper).²

A daily average of 10 to 12 diapers over the first

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month of a baby's life means an infant go through around 300 or so diaper in his first month of life.³

For centuries diaper had been a global practice. Cloth diaper is the oldest styles of diaper which are available on the market. They are single layered fabric which can be folded in many different ways they were considered as extremely economical. The first disposable diaper was created in 1942 in Sweden. Snuggly was India's first diaper brand.⁴

Diapers are essential child care need and a significant expense for families with young women. Diapers are comfortable to wear due to softness, lightness and breathability of the materials used. Babies urinate three to four times throughout the night, resulting in an average 220 ml of urine in the diaper. Therefore, the disposable diaper used must have the ability to absorb quickly and hold this large volume of urine to keep the baby's skin dry.¹

There is increasing awareness towards baby hygiene, demand for baby care products less prone to skin infections, body odour and improve physiological comfort value. Research and development activities are trying to keep pace by developing more and more effective and safe solution. Disposable diapers are undeniably more convenient and popular among young mothers and their usage is likely to grow due to the growing population.⁵

A study conducted on diaper need and its impact on child health in Newhaven Connecticut during the year 2013 the total population was 877 pregnant and parenting women. The study result reveals that 30% of mother report diaper need. This study supports the suggestion that an adequate supply of diaper will reduce parenting stress.⁶

Need and significance of study

A study conducted on satisfaction of mothers with usage of baby diapers in Udaipur city. The study was conducted among 50 mothers of young baby's and it revealed that respondents using cloth diapers were found dissatisfied with frequently washing and changing and also with fitting and construction quality of readymade cloth diapers. About half of respondents were satisfied with disposable diapers.⁵

A study was conducted by a team of doctors from Chennai Medical College in Samayapuram in Tiruchi

studied the use of diaper and the complications in 600 children. The study further revealed that more than 95% of the parents did not know that the prolonged use of diapers could harm the child.

A study was conducted on assessment of knowledge of mothers regarding diaper rashes in infants in a selected rural community, Kanchipuram district Tamil Nadu, India. The total population is 144 mothers of infants in the age group of 0 to 1 years of age. The study findings revealed that nearly 70% mothers had inadequate knowledge, 28% mothers had moderate knowledge, 2% mothers had adequate knowledge regarding diaper rashes, in infants in rural communities.

A cross sectional study on mothers knowledge about diaper rash and preventive measures in Bangladesh in the outdoor of pediatric unit of the combined military hospital in Cumilla, Bangladesh between 01 February 2015 and 31 July 2015. Thirty seven (33.64%) infants aged one or under were reported to have experienced diaper rash during or prior to enrolment in the study. Study analysis showed that the risk of diaper rash was significantly higher in babies who used only 1-2 diapers/day than for babies who used more than 4 diapers/day (21.43% vs 40.0%). Infants whose mothers had knowledge of the causes and preventions of diaper rash and/or who received information about the importance of the proper cleaning of the diaper area during diaper changes suffered fewer incidents of diaper rash than those whose mothers did not (24% vs 36.48%). The causes of diaper rash were described by 48.65% mothers at heat followed by 27.03% mothers by frequent stool or urine.⁹

Problem statement

A study to assess the knowledge on use of diaper and its impact on child health among mothers of infants in a tertiary care hospital, Trivandrum

Objectives

- Assess the knowledge on use of diaper and its impact on child health among mothers of infants by using a semi structured questionnaire.
- Find out the association between the knowledge on use of diaper and its impact on child health among mothers of infants and selected Sociopersonal variables.

Hypothesis

- H1: There is a significant association between the knowledge on use of diaper and its impact on child health among mothers of infants and selected Sociopersonal variables such as age, birth order of the baby, educational status of the mother and income of the family.

Assumption

- Good knowledge will help mothers for proper usage of diaper.
- Mothers have less knowledge on ill effects of diaper.

Operational definition

- **Knowledge:** In this study knowledge refers to the understanding of mothers regarding **diaper** use and its impact on child's health which will be assessed by using a semi structured questionnaire.
- **Use of diaper:** In this study use of diaper refers to the number, duration, quality and brand of diaper.
- **Impact on child health:** In this study impact on child health refers to the side effects such as pampers rash, dermatitis, asthma, allergic reactions, urinary tract infection and respiratory problems.
- **Mothers of infants:** Mothers of children under the age of one who is admitted in pediatric and postnatal ward of KIMS health Trivandrum.

Methodology

Research Approach: Quantitative research approach

Research design: Descriptive non experimental research design

Settings of the study: Pediatric OPD and Pediatric ward of KIMSHEALTH, Trivandrum

Population

Target population: Mothers of infants

Accessible population: Mothers of infant attending in Pediatric OPD and Pediatric ward in KIMSHEALTH, Trivandrum.

Sample

- Mothers of infant's attending in Pediatric OPD and Pediatric ward of KIMSHEALTH, Trivandrum.

Sample size: 50

Sampling technique: Non probability purposive sampling

Criteria for selecting samples.

Inclusion criteria:

- Mothers of infants attending in Pediatric OPD and Pediatric ward of KIMSHEALTH, Trivandrum.
- Mothers who are able to read and understand English or Malayalam language.

Exclusion criteria:

- Mothers who are not willing to participate in the study.
- Mothers of critically ill infants.

Research tool

Semi structured questionnaire which consist of section A and section B.

Section A – Socio personal variables of mother such as age, birth order of the baby, education, occupation of the mother, income of the family, type of diaper and number of diapers used by the child per day.

Section B – Semi structured questionnaire to assess the knowledge regarding diaper use and its impact on child's health which contains 20 multiple choice questions.

Data collection procedure

The research team obtained approval from the Institutional Review Board (IRB) and Ethical Committee of KIMS College of Nursing and also from the in charge of Pediatric OPD and Pediatric ward in KIMSHEALTH, Trivandrum prior to data collection. Data collection was from 09/01/2023-14/01/2023. The researchers introduced themselves and maintained good rapport with the study participant's. Sample was selected using non probability purposive sampling technique. The purpose of the study will

be explained and consent will be obtained from the participants. The semi structured questionnaire was given to the sample who satisfies the inclusion criteria and response was analyzed.

Reference No: KIMS/CON/2022

Date: 23rd December, 2022.

Techniques for data analysis

Descriptive statistics to analyze socio personal variables that will present as frequency distribution

and percentage.

Inferential statistics Chi-square to find the association between knowledge of mothers regarding the use of diapers and its effect on child health and selected socio personal variables.

Analysis and interpretation

SECTION A: DISTRIBUTION OF SAMPLES BASED ON SOCIOPERSONAL VARIABLES

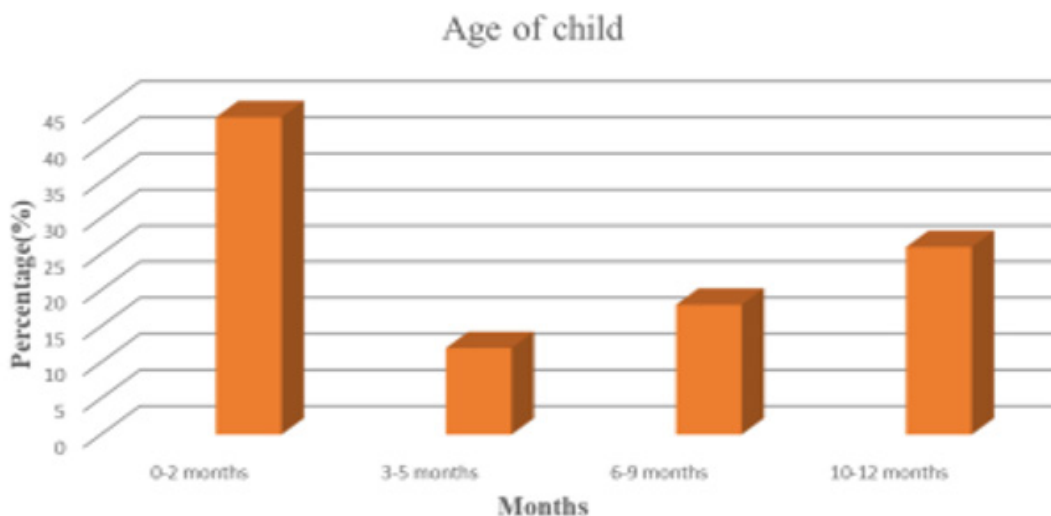


Figure 1: Frequency and percentage distribution of subjects according to age of child.

Figure 1 shows that 44% belongs to 0-2 months, 26% belongs to 10-12 months, 18% belongs to 6-9 months and 12% belongs to 3-5 months.

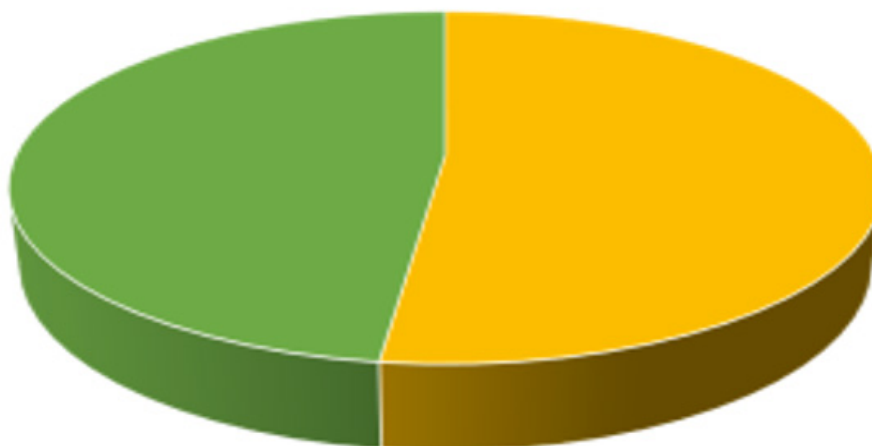


Figure 2: Frequency and percentage distribution according to sex of child

Figure 2 shows that 52% mothers are having male child, and 48 % are having female children.

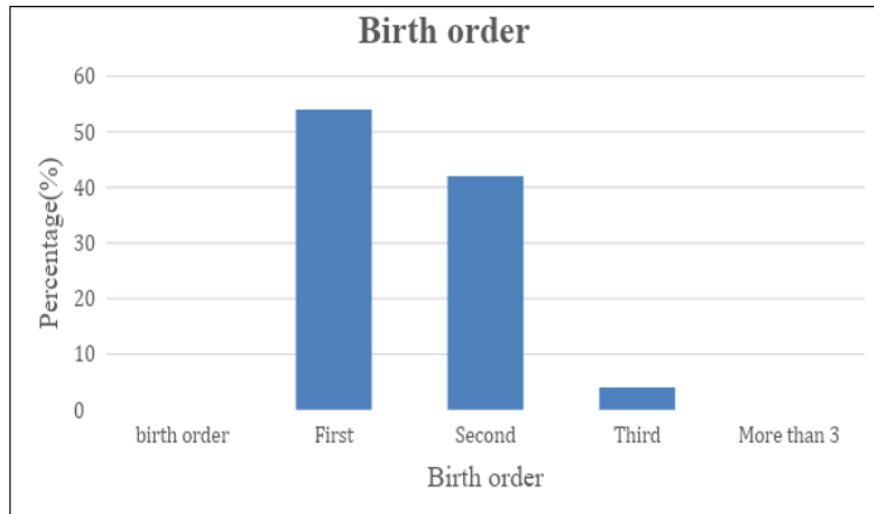


Figure 3: Frequency and percentage distribution of subjects according to the birth order.

Figure 3 show that, 54% children are first born, 42% children are second born and 4% children are third born.

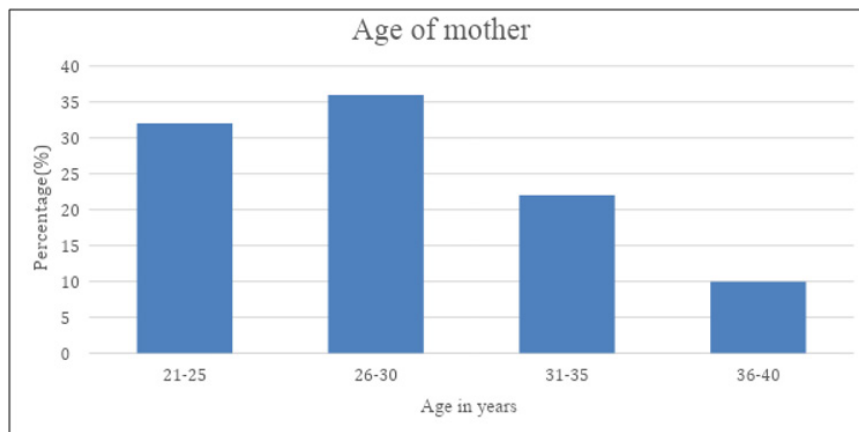


Figure 4: Frequency and percentage distribution of subjects according to age

Figure 4 shows that 36% of mothers belongs to 26-30 years, 32% mothers belongs to 21-25 years, 22% mothers belongs to 31-35 years and 10% mothers belongs to 36-40 years.

Education of mother

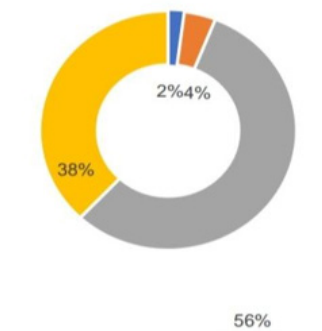


Figure 5: Frequency and percentage distribution of subjects according to education of mother

Figure 5 shows that 56% of mothers belongs to graduate level, 38% of mothers belongs to post graduate level, 4% of mothers belongs to SSLC and 1% belongs to preliminary level.

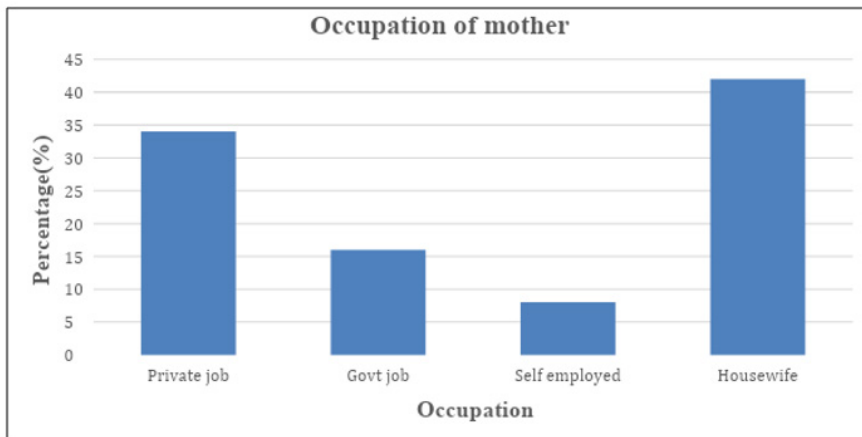


Figure 6: Frequency and percentage distribution of subjects according to occupation of mother.

Figure 6 shows that 42% of mothers are housewives, 34% of mothers are private employees, 16% of mothers are government employees and 8% of mothers are self employed.

Previous exposure to diaper rash

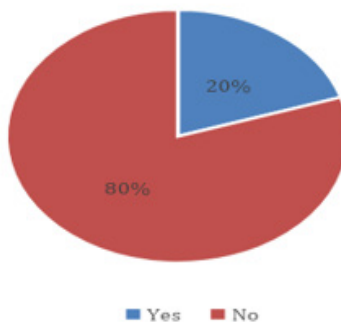


Figure 7: Frequency and percentage distribution of subjects according to previous exposure to diaper use.

Figure 7 shows that 80% doesn't have previous exposure to diaper rash and 20% have exposure to diaper rash.

Section B: Distribution of samples based on the knowledge score

Table 1: Knowledge of mothers on use of diaper and its impact on child health. (n=50)

Level of knowledge	Score	Frequency	Percentage	Mean±SD
Good	15-20	5	10%	
Average	10-14	28	56%	11.87+1.27
Poor	<10	17	34%	

Table 1: Shows that, 56% of the samples had average knowledge and 34% of the samples had poor knowledge and 10% of the samples had good knowledge.

SECTION C: Association between level of knowledge and socio-personal variables

Table 2: Chi-square test showing relationship between knowledge on use of diaper and age of mother.

(n=50)

Variable	Knowledge (frequency)			df	calculated chi-square
	good	average	poor		
Age of mother					
21-25 years	0	5	11		
26-30 years	5	9	5	6	*22.41
31-35 years	4	6	1		
36-40 years	3	1	0		

*Table 2 shows that the computed chi square value (22.41) is greater than the table value (12.59) at df 6. It is evident from the table that obtained chi square value is statistically significant ($p < 0.05$). Hence there is significant association between knowledge and age of mother.

Table 3: Chi-square test showing relationship between knowledge on use of diaper and occupation of mother. (n=50)

Variable	Knowledge (frequency)			df	calculated chi-square
	good	average	poor		
Occupation					
Private Job	7	6	4		
Govt job	3	5	0	6	* 16.37
Self employed	2	0	2		
Housewife	0	10	11		

*Table 3: shows that the computed chi square value (16.37) is greater than the table value (12.59) at df 6. It is evident from the table that obtained chi square value is statistically significant ($p < 0.05$). Hence there is significant association between knowledge and occupation of mother

Results

The research study is organized under the following headings:

Section A: I: Sociopersonal variables of mother

- In the age of the child 44% were children of age group of 0-2 months, 12% were children of age group within 3-5 months, 18% were children of age within 6-9 months and 26% were children of age within 10-12 months.
- With regards of sex of the child 52% was male and 48% was females.
- In birth order 54% children were first born, 42% children were second born, 4% children were third born.
- Majority of the samples are at the age group 26-30 years (36%), 32% of samples belongs to age group 21-25 years, 22% of the sample belongs to age group 31-35 years and 10% of the samples belongs to age group 36-40 years.
- Among 50 samples 2% belongs to preliminary education, 4% educated upto SSLC, 56% belongs to graduate level, 38% belongs to post graduate level.
- Among 50 mothers 34% were private employees, 16% were government employees, 8% were self employed, 42% were housewives.
- Among the family income 4% have family income below Rs.10, 000/-, 20% have family income from Rs.10, 000/- to 20,000/- , 28% have family income from Rs.20, 000/- to Rs.30, 000/- , 48% have family income above Rs.30, 000/-.
- Majority of the children, were using disposable diapers (94%) and 6% were using cloth diapers.
- With regards to duration of diaper use 32% have duration of diaper use between 1-2 hours, 48% have duration of diaper use between 3-4 hours, 18% have duration of

diaper use between 5-6 hours and 2% have duration of diaper use between 7-8 hours.

- In previous exposure to diaper rash 20% of children have previous exposure to diaper rash and 80% of children doesn't have any exposure to diaper rash.

Section B: Knowledge on diaper use and its impact on child health among mothers of infants.

The study reveals that 10% of samples had good knowledge, 56% of samples had average knowledge and 34% of samples had poor knowledge.

Section C: Association between knowledge on use of diaper and its impact on child health among the mothers of infants and selected Sociopersonal variables.

The selected Sociopersonal variables in the study include age, sex of the baby, birth order of the baby, education, occupation of the mother, income of the family, type of diaper and number of diaper used by the child per day.

The knowledge on diaper use and its impact on child health among mothers of infants are statistically significant ($p < 0.05$) with the Sociopersonal variables, age of mother ($\chi^2 = 22.41$, $df = 6$) and occupation of mother ($\chi^2 = 16.37$, $df = 6$) and there shows a no significant association ($p > 0.05$) with the socio-personal variables such as age of child ($\chi^2 = 11.76$), sex of the baby ($\chi^2 = 1.82$), birth order of the baby ($\chi^2 = 10.11$), education of mother ($\chi^2 = 2.41$), income of family ($\chi^2 = 11.07$), type of diaper used ($\chi^2 = 1.64$), duration of diaper use ($\chi^2 = 5.5$), previous exposure to diaper rash ($\chi^2 = 1.47$)

Discussion

The first objective of the present study was to assess the knowledge on use of diaper and its impact on child health among the mothers of infants. In the present study among 50 samples, 56% of the samples had average knowledge, 34% of the samples had poor knowledge and 10% of the sample had good knowledge¹.

A similar study was conducted on assessment of knowledge of mothers regarding diaper rashes in infants in a selected rural community, Kanchipuram district Tamil Nadu, India.

The total population is 144 mothers of infants in the age group of 0 to 1 years of age. The study findings revealed that nearly 70% mothers had inadequate knowledge, 28% mothers had moderate knowledge, and 2% mothers had adequate knowledge regarding diaper rashes, in infants in rural communities².

The second objective was to find out the association between knowledge on use of diaper and its impact on child health among the mothers of infants and selected Sociopersonal variables.

A similar study conducted on 'Knowledge of mothers with children age 1 to 24 months on diaper dermatitis management and associated practice in a referral hospital in Northern Ghana: a cross sectional study'. A total of 456 mothers with infants aged 1-24 months were recruited using the systematic sampling technique. The study result revealed that there is significant association between socio-demographic variables, respondents' diaper hygiene practices and knowledge on the management of diapers. The only socio-demographic variables with significant association with knowledge of diaper management were employment status of mothers³.

Conclusion

The main conclusion drawn from the study was that majority of the mothers of infants had poor to average knowledge regarding use of diapers and its impact on child health

Limitations

- The study is limited to the mothers of child attending in pediatric OPD and admitted in pediatric wards of KIMSHEALTH, Trivandrum.
- The study is limited to 50 subjects
- The findings could not generalize due to small population

Recommendations

- A similar study can be replicated to a large sample size in different sample size in different setting.
- A similar study can be conducted by giving an intervention and its effect on it.

Source of funding: Self

Conflict of Interest: Nil

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A Comparative Study to Assess Knowledge and Perception Regarding Leucorrhoea among Women of Reproductive Age Group in Selected Rural and Urban Areas of Ludhiana, Punjab

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Abstract

Leucorrhoea is a thick, whitish vaginal discharge. It is a symptom, not a disease. Subjectively and objectively it is an expression of some underlying disorder, either functional or organic. A comparative study was conducted to assess the knowledge and perception regarding leucorrhoea among 100 women of reproductive age group by using convenience sampling technique. The finding of the present study revealed that highly positive co- relation was found between knowledge and perception regarding leucorrhoea, $r = 0.8$ for rural area and $r = 0.9$ for urban area, indicated the highly positive co- relation between knowledge and perception regarding leucorrhoea. Hence it is further recommended to this study on large sample for better generalization. Similar study can be conducted by using qualitative approach using in-depth interviews and on OPD patients i.e. with leucorrhea.

Key words: knowledge, perception, leucorrhoea, reproductive age group.

Introduction

Leucorrhoea is a thick, whitish vaginal discharge. It is a natural defence mechanism that the vagina uses to maintain its chemical balance as well as preserve the flexibility of vaginal tissue.¹ Leucorrhea is mainly classified into two types - physiological and pathological. Physiological leucorrhoea is an excessive discharge from healthy vagina. Pathological leucorrhoea is white discharge due to some disease of the female reproductive tract.² The symptoms include excessive and foul smelling discharge, pain, lethargy and weakness, vaginal itching, spotting on the under wear.³ Depression, isolation, irritability

and lack of concentration, rashes or spot on the genitals, painful sexual act and also cervical cancer, pelvic inflammatory diseases and infertility.⁴ The treatment of leucorrhoea is to improve the general health.⁵ Kapoor AK, Kaur J. (2013) conducted a cross sectional study to assess the knowledge and perception regarding leucorrhoea in a Slum Dwelling South Asian Community. The study reported that the working women are expected to hold greater knowledge and perception about leucorrhoea was varied. The most common perception that was held among these women regarding leucorrhoea was 'weakness'.⁶

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Materials and Methods

The study was conducted in Daba (rural) and Jain colony (urban area) of Ludhiana, Punjab on a total of 100 women of reproductive age group, 15- 45 years. Data was collected by using interview method. Personal one to one interview was conducted. The structured questionnaire was used to assess the knowledge and likert scale to assess the perception regarding leucorrhoea among women of reproductive age group. Content validity of the structured tool was determined by the expert's opinion. These experts were from the different specialties i.e. obstetrics and gynecological nursing and community health nursing.

Findings

The analysis of the data revealed the following:

- In rural area majority (38%) women of reproductive age group belonged to 26- 35 year, (86%) were non- working and (50%) had unmarried, (30%) were having Sen. Sec school education, (52%) living in nuclear family and (70%) belonged to Sikh religion. Where as in urban area, majority (46%) women of reproductive age group belonged to 15-25 year, (74%) were non- working and (48%) had unmarried. (46%) were graduate/ post graduate degree, (66%) living in nuclear family and (60%) belonged to Hindu religion.
- The urban area women of reproductive age group had higher knowledge as compared

to rural area women regarding leucorrhoea and in both rural and urban area majority of women had average level of knowledge regarding leucorrhoea.

- In both rural and urban area women of reproductive age group had positive perception regarding leucorrhoea as a disease but urban area women had more positive perception as compared to rural area women regarding leucorrhoea.
- According to mean knowledge score, Occupation ($Z= 4.45$), educational status ($Z= 8.73$ for rural area and 4.80 for urban area), and type of family ($Z= 3.18$) had significant effect on knowledge regarding leucorrhoea.
- According to mean knowledge score, Age ($Z= 0.96$ for rural and 0.12 for urban area), marital status ($Z= 0.19$ for rural and 1.20 for urban area), and religion ($Z= 0.54$ for rural and 0.17 for urban area) had no effect on knowledge regarding leucorrhoea.
- According to mean perception score, occupation ($Z= 5.90$), educational status ($Z= 6.46$ for rural and 4.80 for urban area), and type of family ($Z= 2.73$) had significant effect on perception regarding leucorrhoea.
- According to mean perception score, Age ($Z= 0.54$ for rural and 0.25 for urban area), marital status ($Z= 0.23$ for rural and 0.84 for urban area), and religion ($Z= 0.54$ for rural and 0.17 for urban area) had no effect on perception regarding leucorrhoea.

Table 1: Mean, mean percentage knowledge score regarding leucorrhoea among women of reproductive age group according to area of knowledge

		Knowledge score			
		Rural area (n=50)		Urban area (n=50)	
Area of knowledge	Maximum score	Mean score	Mean percentage	Mean score	Mean percentage
Introduction	4	2.24	11	3.18	16
Causes	4	2.12	11	2.22	11
Symptoms	4	2.02	10	2.4	12
Management	4	2.52	12	2.62	13
Prevention & complication	4	1.86	9	2.24	11
Total	20	10.76	53	12.66	63

Maximum score: 20

Minimum score: 0

Table 2: Mean, mean percentage perception score regarding leucorrhoea among women of reproductive age group according to area of perception N= 100

Area of perception	Maximum score	Perception score			
		Rural area (n=50)		Urban area (n=50)	
		Mean score	Mean percentage	Mean score	Mean percentage
1. Perceived causes	33	24.16	20	26.98	22
2. Perceived effect	78	52.8	44	59.98	49
3. Perceived treatment	9	6.12	5	7.26	6
Total	120	83.08	69	94.22	77

Maximum score: 120

Minimum score: 40

Discussion

In both rural and urban area, women of reproductive age group had higher knowledge and positive perception regarding leucorrhoea. The findings were contradicted by **Nagaraj A, Yousuf A, Ganta S. (2013)** who studied Perception of Rural and Urban Mothers about Consumption of Targeted Fortified Products. Results shown that a total of 53.33% rural and 65.33% urban mothers had knowledge, amongst which 52.67% rural and 66.00% urban mothers ($P= 0.026$) consumed TFP directed towards mothers. In addition, 56% rural and 94.67% urban mothers had knowledge about TFP directed towards children, amongst which 19.33% rural and 50.67% urban mothers fed their children with TFP. There was significantly less awareness regarding consumption of TFP directed towards both pregnant women and children among rural when compared to urban population.⁷ Educational status had significant effect on the knowledge regarding leucorrhoea among women of reproductive age group in rural and urban area. The study findings were supported by **Chaudhary V, Kumar R, K Agrawal V. (2012)** who studied Prevalence and Determinants of Vaginal Discharge among Women of Reproductive Age Group. Result shows that illiteracy (60.1%) was found to be significantly associated with vaginal discharge. And lack of knowledge is also associated with it.⁸

Marital status had significant effect on perception regarding leucorrhoea among women of reproductive age group in rural and urban area. The study findings were supported by **Mueller, Wasserheit. (1991)**

conducted a study to assess the women's perception of white discharge. Results shows that there were noticeable difference in the women's perception of leucorrhoea by their marital status and personal experiences. They are perceiving leucorrhoea as a disease.⁹

Conclusion

In both rural and urban area majority of women had average and below average level of knowledge and positive perception regarding leucorrhoea.

Conflict of interest: Nil

Source of funding: The researcher has used self funding system to collect the data.

Ethical clearance: A written permission from Oswal college of nursing, Ludhiana was taken before conducted the study. Verbal consent from subjects was taken before filling the questionnaire from women of reproductive age group. Anonymity of subjects and confidentiality of information was maintained. So, it was ensured that the study did not affect the subjects in any way.

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Effect of Tensing Toe Relaxation Technique on Test Anxiety among B.Sc Nursing 1st Year Students in Selected Colleges, Bhubaneswar, Odisha

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Abstract

Background: Test anxiety is a psychological condition that causes extreme stress and anxiety in exam situations. Students feel stress and anxiety before exams. It can disrupt their learning and lead to poor performance. Relaxation techniques, like tensing toe relaxation, are the most effective non-pharmacological techniques for reducing stress because they affect mental and physical states like depression, mood, anxiety, and self-blaming.

Objective: To evaluate the effect of the tensing toe relaxation technique on test anxiety among first-year B.S. nursing students and the association of the level of test anxiety with their selected demographic variables.

Methods: The Quasi-experimental research study was conducted in two selected colleges in Bhubaneswar, Odisha, among B. Sc. Nursing 1st year students. Thirty-four (34) students were selected for each Experimental and Control group by using the Purposive sampling technique. Nist, Diehl A test anxiety scale and a self-structured socio-demographic tool were used for collecting the data through the questioning method. After demonstrating the tensing toe relaxation technique to the experimental group, they were asked to practice for 2 weeks. The post-test was conducted at the end of two weeks.

Results: Study findings show a reduction of test anxiety with ($t = 6.02$) ($p = 0.000$), which is highly significant at $p < 0.001$, and also the unpaired t-test post-test values show a significant change at $p < 0.001$. Furthermore, there is a significant association between the level of test anxiety and selected demographic variables at $p < 0.05$.

Conclusion: The Tensing toe relaxation technique is an effective intervention to reduce test anxiety.

Keywords: Test anxiety, Tensing Toe relaxation technique, stress, and anxiety

Introduction

Anxiety is an emotion that includes feelings of anxiety over an impending event as well as an

unpleasant state of inner conflict. Anxiety disorders are situations where anxiety persists and have the potential to worsen over time. Daily tasks

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including job performance, academic progress, and interpersonal relationships might be hampered by symptoms.

In the US, anxiety disorders are a more prevalent mental illness, affecting 40 million adults (18.1% of the population) each year. Anxiety disorders are curable; globally, 36.9% of people with anxiety disorders receive therapy each year under ideal therapeutic conditions.

The total cost of all mental health issues to the worldwide economy by 2030 may reach \$16 trillion. The World Economic Forum's Annual Meeting 2019 in Davos focused on how the world deals with mental health issues, which are a financial burden and a blight on an increasing number of people's lives.

Test anxiety is actually a type of performance anxiety. It's an emotion someone might feel in a situation where performance really matters, or when there's a lot of pressure to do well. Some people experience performance anxiety right before they stand on the floor, step onto the platform in a show-jumping competition or leave for an important interview. Test anxiety can cause butterflies, stomachaches, or headaches may feel shivering, sweaty hands, and a rapid heartbeat.

Health care education has an great impact on the development of countries and student academic performance plays an important role in this regard. Test anxiety can affect a student's academic performance. According to the American Test Anxieties Association, about 16 to 20 percent of students have high test anxiety, with another 18 percent troubled by moderately high test anxiety.

Nursing education comprised of using knowledge and skills both in academics and clinical settings. Students must be a critical thinker in emergency situation, if they feel anxiety at that situation that will hamper their clinical work as well as skills. To get rid from this relaxation technique can be used. Because stress influences mental and physical problems, depression, mood, anxiety, and self-blame, relaxation is considered one of the most effective non-pharmacological techniques for relieving stress. The

tensing toe method is a form of progressive muscle relaxation. In progressive muscle relaxation, certain muscle groups alternately tighten and relax. Toe flexion is a great way to relax after a long day and can also be done in bed right before bed.

Methodology

Study design and Sample

The Quantitative Quasi-experimental research study was conducted in two selected colleges of Bhubaneswar, Odisha among BSc Nursing 1st year students who were willing to take part in the study i.e. Kalinga Institute of Nursing Sciences and Vivekananda College of Nursing. Participant with optical and hearing impairments and who were having anxiety disorders and taking prescribed anti-anxiety drugs were excluded from the study.

Sample size & Sampling technique

According to the literature, the sample size is derived by applying the compliance value and 68 samples were chosen. Considering the effect size 0.07 at 95% level of significance, 80% power the minimum required sample size is 34 for each group i.e. the total number of samples is 68.

Purposive Sampling Technique was used to select experimental and control group from the population.

Data collection tools and technique

Data were collected by using Nist and Diehl test anxiety questionnaire and self-structured demographic variables. Test anxiety questionnaire consisted of Ten (10) statements. If the score is Less than 20 then it is considered as mild anxiety, 20-35 moderate anxiety and more than 35 is severe anxiety. Data were collected by using questionnaire.

Ethical consideration

This study was ethically approved by IEC after commencement of required discussions at its board meeting. Approval was obtained from selected college authorities for conduction of study in those selected institutions. Informed consent was obtained from students. Confidentiality and anonymity was maintained in recording and storage of data throughout the study.

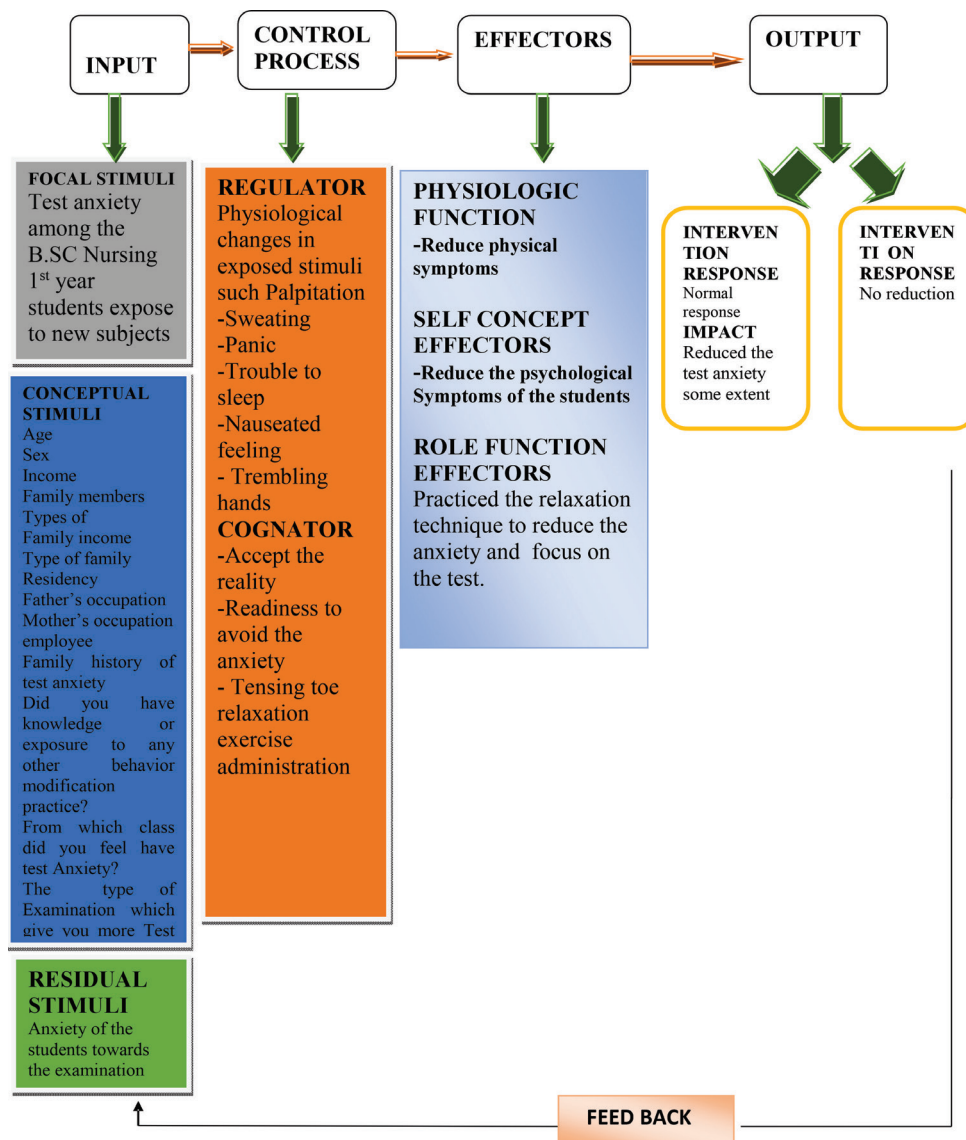


Figure 1: Demonstrate the conceptual presentation of study by using Roy's Adaptation Mode

Results

A total of 68 participants were selected, 34 participants were included in both experimental and control group. Regarding the age of the participants in experimental group 25 (73.5%) and control group 18 (53.94%) majority of them were in the age between 17-18 years. Gender of the participants, in the experimental group 27 (79.4%) and control group 22 (64.7 %) depict that majority were females. With regard to the level of test anxiety among experimental group participants, during pre-test, majority 32 (94.11 %) were having severe test anxiety while among post-test 15(44.11%) were having moderate

anxiety. With regard to the level of test anxiety among control group participants, during pre-test, majority 32 (94.11 %) were having severe test anxiety while among post-test 29(85.29%) were having severe anxiety. The analysis showed using paired t-test that there is significant change ($p < 0.001$) in the experimental group after administering tensing toe relaxation technique with mean difference (9.17). The inferential analysis showed from unpaired t-test that there is significant change ($p < 0.001$) in the post test values of experimental and control group. There is no significant association between association between test anxiety and selected demographic variables.

Table 1: Frequency and Percentage Distribution According to Level of Test Anxiety Among Participants in Experimental Group(n1=34)

S. No	Level of Test Anxiety	Pre Test		Post Test	
		Frequency	Percentage	Frequency	Percentage
1.	Mild Test Anxiety	0	0.00	7	20.58
2.	Moderate Test Anxiety	2	5.88	15	44.11
3.	Severe Test Anxiety	32	94.11	12	35.29

Table 2: Frequency and Percentage Distribution of Subjects According to Level of Test Anxiety Among Participants in Control Group (n2 = 34)

S. No	Level of Test Anxiety	Pre Test		Post Test	
		Frequency	Percentage	Frequency	Percentage
1.	Mild Test Anxiety	0	0.00	0	0.00
2.	Moderate Test Anxiety	2	5.88	5	14.70
3.	Severe Test Anxiety	32	94.11	29	85.29

Table 3: Paired t test analysis to assess the pre test and post test level of anxiety among participants of experimental and control group

Experimental Group	Mean	Mean Difference	Standard Deviation	Paired 't' Test	P value
Pre-Test	39.29	9.17	2.43	6.02 (df =33)	0.000*
Post-Test	30.11		8.51		

Table 4: Mean, Mean Difference, Standard Deviation and Paired 't' test level of Test Anxiety among participants in Control Group

Control Group	Mean	Mean Difference	Standard Deviation	Paired 't' test	P value
Pre-Test	39.85	1.23	3.06	1.94 (df = 33)	0.06
Post-Test	38.79		4.11		

Table 5: Unpaired t test analysis assesses the pre and post test level of test anxiety among participants of Experimental and Control group

Table - 5(i)

Pre test	Mean	Mean Different	SD	Unpaired "t" test	P Value
Experimental group	39.29	0.56	2.43	0.8 (df = 66)	0.40
Control Group	39.85		3.06		

Table - 5 (ii)

Post test	Mean	Mean Different	SD	Unpaired "t" test	P Value
Experimental group	30.11	8.5	8.51	5.24 (df = 66)	0.000*
Control Group	38.61		4.44		

Discussion

The Quantitative Quasi-experimental research study was conducted in two selected colleges of Bhubaneswar, Odisha among BSc Nursing 1st year students. A total of 68 participants were selected where 34 participants were included in both experimental and control group.

This study was corroborated by a related article in which the researcher carried out quantitative pre-experimental one group pretest posttest research to see how well the tensing toe relaxation technique reduced test anxiety in adolescents in a particular school. According to the study's findings, test anxiety significantly decreased in teens that used the tensing toe relaxation technique. This demonstrates that there is a need to practice the tensing-toe relaxation technique at various developmental stages.

Regarding age of the participants in experimental group 25 (73.5%) and control group 18 (53.94%) majority of them were in the age between 17-18 years. Gender of the participants, in the experimental group 27 (79.4%) and control group 22 (64.7%) depict that majority were females. With regard to family monthly income in experimental group 20(58.8%) and control group 21(61.76%) participants were coming under the range of Rs 30,831 above. In experimental group 23(67.64%) and control group 21(61.76%) participants were from joint family. With regard to residency in experimental group 30(88.23%) and control group 21(61.76%) were staying in the hostel. In experimental group 16(47.05%) and control group 16(47.05%) participant's father working as private employee. In experimental group 18(52.94%) and control group 22(64.7%) participant's mothers were housewife. Regarding family history of test anxiety in experimental group 31(91.17%) and control group 25(73.52%) were not having family history of test anxiety. In experimental group 29(85.29%) and control group 26(76.47%) participants were not exposing to any other behaviour modification practice. In experimental group 16(47.05%) and control group 15(44.11%) participants felt test anxiety from class 1-5. In the experimental group 17(50%) participants felt more test anxiety during summative exam and control group 13(38.23%) participants felt more test anxiety during formative

exam. In experimental group 21(61.74%) and control group 20(58.82%) participants felt more anxiety during Anatomy and Physiology exam. Practical examination makes the participants to get more fear where majority of the participants in experimental group were 14(41.17%) and in control group were 16(47.05%). In experimental group 28(82.35%) and control group 19(55.88%) participants were average students. Regarding the level of test anxiety among experimental group participants, during pre-test, the majority 32 (94.11 %) were having severe test anxiety while among post-test 15(44.11%) were having moderate anxiety. With regard to the level of test anxiety among control group participants, during pre-test, the majority 32 (94.11 %) were having severe test anxiety while among post-test 29(85.29%) were having severe anxiety. The analysis showed using paired t-test that there is significant change ($p < 0.001$) in the experimental group after administering tensing toe relaxation technique with mean difference (9.17). The inferential analysis showed from unpaired t-test that there is significant change ($p < 0.001$) in the post test values of experimental and control group. There is no significant association between test anxiety and selected demographic variables.

Conclusion

The results of this study proved that BSc nursing students' test anxiety can be reduced by using the Tensing toe relaxing technique. In order to reduce anxiety, it was recommended that nursing students be taught relaxation techniques like this one before beginning clinical practice.

Recommendation

- The study can be replicated by using larger samples.
- A study could be undertaken in different settings like Government colleges, private colleges and other sectors also.
- A mixed-method study can be conducted to know the experiences of students.

Conflict of Interest: Nil

Source of Funding: Self funded (In order to conduct and publish this research study, the author received no outside funding)

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Level of Self Esteem among Children of Alcoholic and Non Alcoholic Parents

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Abstract

The National Association of Children of Alcoholics estimates that there are 11 millions children of alcoholics under the age of 18 years.

A study was conducted to assess level of self esteem among children of alcoholic & non alcoholic parents. The objectives were to assess, compare and find out the association between the level of self esteem and socio personal data. Methodology adopted for the study was descriptive comparative design with multistage sampling. Sample size was 128. Structured questionnaire was used to collect socio personal data of participants and Children of Alcoholics Screening test was used to identify children of alcoholic and non alcoholic parents. After that the standardized tool State Self Esteem Scale was used to assess the level of self esteem The study findings revealed that in children of alcoholic parents group, 82.8% (53) were having poor self esteem and 17.2% (11) were having good self esteem where as in children of non alcoholic parents group, 78.1% (50) were having good self esteem and 21.9% (14) were having poor self esteem. On the basis of comparison between the level of self esteem among children of alcoholic and non alcoholic parents, revealed that there is statistically significant difference between level of self esteem score among children of alcoholic and non alcoholic parents group.

Keywords: self esteem, children, alcoholic parents, non alcoholic parents

Introduction

Adolescence is a phase characterized by physical, psychological, social, and emotional changes. The good and bad experiences to which the individuals are exposed during this delicate stage of life may influence the person throughout his life.¹ Adolescence, who are emotionally weak, are notable to regulate their emotions, have a feeling of lower self esteem and mood disorders, and are the victims of various psychological disorder.²

Family is important for children's social and emotional development, like identity, adaptive behaviors, social skills, sense of self; further regulation of behaviors and emotions are usually start to develop from home.³ If children have parents with an alcoholic problem, then general well-being is affected negatively.¹

Self esteem is an overall evaluation of the person's value, expressed in a positive or negative orientation towards himself. Its development starts

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from birth and is constantly changing under the influence of experience. Self esteem has two element self knowledge and self awareness.³ The impact of alcoholism has greater effect on children and these problems are unnoticed by parents and teachers, which will results in complications during childhood and even in early adulthood.⁴

Adolescences mental health problems are global issues and it is vital to understand more about adolescent development. Understanding the psychological, social and biological changes in adolescence now needs interventions and treatments that aim to support the mental health of young people across the world, and to prevent mental health problems.⁵ The consequences of alcoholism has greater effect on children and studies are not focused on these issues; hence the investigator felt that there is a need to assess and compare the level of self-esteem among children of alcoholic and non alcoholic parents. The earliest age and appropriate rehabilitation services will prevent further complications. The nurse can assess accurate assessment of self esteem with the use of standardized scale among adolescents in the clinical and community settings.⁶

Statement of the problem

A comparative study to assess the level of self esteem among children of alcoholic and non-alcoholic parents in selected wards of Thiruvananthapuram Corporation

Objectives of the study

1. Assess the level of self esteem among children of alcoholic parents.
2. Assess the level of self esteem among children of non alcoholic parents
3. Compare the level of self-esteem between children of alcoholic and non alcoholic parents
4. Findout the association between the level of self esteem and socio personal data among children of alcoholic and non alcoholic parents.

Assumptions

Children of alcoholic parents may have low self esteem compared to Children of non alcoholic parents.

Methodology

Quantitative research approach was used to assess the level of self esteem among children of alcoholic and non alcoholic parents.

Informed consent was taken from parents.

Research design

Descriptive comparative design

Setting of the study

The study was conducted in Pappanamcode and Estate wards of Thiruvananthapuram Corporation

Population

Population consist of children of alcoholic and non alcoholic parents in Thiruvananthapuram Corporation

Sample

Children in the age group of 11-14 years of alcoholic and non alcoholic parents in Pappanamcode and Estate wards of Thiruvananthapuram Corporation

Sample size

The sample size for the present study was 128

Sampling technique

Multi stage sampling technique was used for the present study

Tool 1: It includes two sections: Section A and B

Section A: Structured questionnaire to assess the socio personal data of children

It consists of 15 questions such as age, gender, number of siblings, religion, education, occupation, income, type of family, use of mass media, overall grade in school, staying status and number of friends.

Section B: Clinical data of alcoholic parent

Tool 2: Children of Alcoholics Screening Test (CAST-6)

The tool consists of 6 structured questions of 'yes' or 'no' options which describes children's feelings, behavior and experiences related to parental alcoholism.

Tool 3: State Self Esteem Scale (SSES)

It consists of 20 items having the domain such as social self esteem, performance self esteem and appearance self esteem and have positive and negative items marked with 5 point likert scale.

Data collection process

The data were collected from 128 subjects following inclusion criteria by door to door survey and participants were seated separately to provide

privacy. 15-20 minutes were taken to complete the data collection. Structured questionnaire was used to collect socio personal data of participants, Children of Alcoholics Screening test was used to identify children of alcoholic and non alcoholic parents and State Self Esteem Scale was used to assess the level of self esteem among the children of alcoholic and nonalcoholic parents. The data was collected over a period of 1 month.

Results

Table 1: Level of self-esteem among children of alcoholic and non-alcoholic parents

Children of alcoholic Parents group			Children of non alcoholic Parents group		Total	
Self esteem	N	%	n	%	n	%
Poor	53	82.8	14	21.9	67	52.3
Good	11	17.2	50	78.1	61	47.7
Total	64	100	64	100	128	100

The results revealed that 82.8% (53) were having poor self esteem and 17.2% (11) were having good self esteem where as in children of non alcoholic parents

group, 78.1% (50) were having good self esteem and 21.9% (14) were having poor self esteem.

Table 2 (a): Comparison of the level of self esteem among children of alcoholic and non alcoholic parents

Category	n	Mean	SD	t	p
Children of alcoholic parents	64	47.14	10.39	6.332	***0.001
Children of non alcoholic Parents	64	61.34	14.63		

***Significant at 0.001 level

Table 2 (b): Domain wise comparison of self esteem among children of alcoholic and non alcoholic parents

Domains of Self esteem	Category	n	Mean	SD	t	p
Performance Self esteem	Children of alcoholic parents group	64	15.5	5.0	4.922	***0.001
	Children of nonalcoholic parents group	64	20.9	7.3		
Social Self esteem	Children of alcoholic parents group	64	17.0	6.9	3.037	*0.003
	Children of non alcoholic parents group	64	20.5	6.2		
Appearance Self esteem	Children of alcoholic parents group	64	15.2	6.7	3.951	***0.001
	Children of nonalcoholic parents group	64	19.9	6.7		

***Significant at 0.001 level, *Significant at 0.05 level

Table 2 (b) shows that, statistically significant difference was observed among different domains of self esteem: performance self esteem, social self

esteem and appearance self esteem in children of alcoholic and non alcoholic parents

Table 3: Association between level of self-esteem and socio personal data such as monthly income of family and use of mass media (n= 128)

Socio personal data	Self esteem				χ^2	df	p	
	Poor		Good					
	n	%	n	%				
Income of Family	<5000	5	29.4	12	70.6	14.985	2	***0.001
	5001-10000	13	34.2	25	65.8			
	>10000	49	67.1	24	32.9			
Use of mass media	Any one	27	67.5	13	32.5	6.490	2	*0.039
	Any two	24	41.4	34	58.6			
	More than 2	16	53.3	14	46.7			

***Significant at 0.001 level, *Significant at 0.05 level

Discussion

The observation made in the study is that, 82.8% (53) of participants were having poor self esteem in children of alcoholic parents group and 78.1% (50) of participants were having good self esteem in children of non alcoholic parents group. These study finding were supported by another study conducted to assess anxiety, depression, self-esteem among children of alcoholic and non alcoholic parents in Bangalore, revealed that children of alcoholics having low self esteem and high rate of anxiety.¹⁴ So findings of the present study and that of the earlier studies confirm that low self-esteem was found in children of alcoholic parents.⁶

On the basis of comparison between the level of self esteem among children of alcoholic and non alcoholic parents. In this study, there is statistically significant difference between level of self esteem score among children of alcoholic and nonalcoholic parents group. This result was in tune with another comparative study conducted to assess self esteem and adjustment among adolescent children of alcoholic and non alcoholic parents, in Coimbatore, revealed that children of alcoholic having low level of self esteem and adjustment than in children of non alcoholics. So the study findings of the present study and previous researchers confirm that, low self esteem were more among children of alcoholics than children of non- alcoholics.⁷

Self-esteem is one of the major life skills of children that contribute towards the development of personality. Positive self-esteem helps to protect grown up individuals from mental health problems. It is also necessary for enabling a person to cope with the various stressful situations and challenges of everyday life. Proper self-esteem helps develop the ability to act independently, negotiate frustrations, assume responsibility, overcome stress, accept new challenges and face the world with confidence and positive outlook. The environment in which a child grows up gives shape to his /her self esteem.

Nursing implications

The present study has got implications in the field of nursing practice, nursing education, nursing administration and nursing research

Nursing practice

Mental Health Nurse can conduct individual and group health education program in the community regarding the importance of self esteem and adverse effects of alcoholism.

Nursing education

Nursing curriculum, can be modified with more emphasis on psychological issues related to self esteem

Nursing administration

Nurse administrator can place experienced persons in meeting the needs of the children

Ethical Clearance: Data collection was done after obtaining the institutional ethical clearance on 23/07/2020 with reference number of ACN 202/2020/7, and the permission was obtained from authorities of concerned Municipal wards.

Source of funding: Self

Conflict of Interest: Nil

Limitation

This study has following limitation:

- The study was limited to Thiruvananthapuram corporation hence generalization of the study findings is not possible
- Sample size was less due to covid pandemic

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