

ISSN 2320-8643 (Print) ● ISSN-2320-8651 (Electronic)

Volume 11

Number 01

January-June 2023



INTERNATIONAL JOURNAL OF NURSING CARE

Website: www.ijonc.com

International Journal of Nursing Care

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International Journal of Nursing Care is a double blind peer reviewed international journal which has commenced its publication from January 2013. The journal is half yearly in frequency. The journal covers all aspects of nursing care. The journal has been assigned ISSN 2320-8643 (Print Version) and ISSN 2320-8651 (Online Version). The journal is Indexed in many international data bases.

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ISSN 2320-8643 (Print Version) and ISSN 2320-8651

(Online Version). Frequency: Half Yearly

Published at

Institute of Medico-legal Publications

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

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A Descriptive Study to Assess the Level of Anxiety Among Higher Secondary Students in Relation to Futuristic Opportunities During Covid-19 Pandemic

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How to cite this article: Tomar G, Godiyal P, Chitra K. A Descriptive Study to Assess the Level of Anxiety Among Higher Secondary Students in Relation to Futuristic Opportunities During Covid-19 Pandemic. 2023;11(1):1-6.

ABSTRACT

The main purpose of this study was to investigate the prevalence of anxiety among students going to complete their school education during the COVID-19 pandemic. A total of 39 students living in Uttarakhand participated in this cross-sectional online survey through e-form. A modified anxiety inventory was used to gather information and the link was shared through Gmail ID. The analysis was done on two levels, such as univariate and bivariate. Out of a total 21% were experiencing mild anxiety, 48% were with moderate anxiety, and 15% were having severe anxiety related to their futuristic opportunities.

Keywords: assess, anxiety, futuristic opportunity, pandemic

INTRODUCTION

Across the world, the coronavirus disease outbreak negatively impacted people's lives. As it was declared a pandemic on March 11, 2020, by the World Health Organization, millions of people were infected with COVID-19, with a confirmed death toll of 0.4 million worldwide. Many countries restricted movement within their borders. It was all to restrict the transmission of the COVID-19 infection from human to human.

The Indian government implemented certain measures to control the outbreak of COVID-19 in India. They made strict guidelines for lockdowns, restrictions on outer state passengers' avoidance of large gatherings, social distancing, and online teaching systems on the educational side. At first, all these restrictions were accepted, but slowly, social isolation resulted in consequences such as

depression, anxiety, and some other mental and behavioral issues.

Individuals, as well as the family, were trying to fit into this new environment. Family members were supporting each other to utilize such practices that would enhance their confidence level and provide happiness. It was a great challenge for everyone worldwide to fit into new environments. Parents were playing an important role in making their children safe, and there was one more burden on them to make their children do well during online classes as much as possible.

Salelkar SS et al. conducted a cross-sectional study that was carried out to find the prevalence of depression, anxiety, and stress among School Going Adolescents and their Relationship to Socioeconomic Status by using the DASS-21 scale on a total of 231

students. Almost 3 out of 4 children from the 9th to 12th class had symptoms related to at least one of the mental morbidities discussed, i.e., depression, anxiety, or stress. Depression and stress were found to be significantly more prevalent in students who appeared in board exams, than those not answering board exams. Students of class 11th had a comparatively lower prevalence of Depression, Anxiety, and Stress.

Islam MA. et al (2020) conducted a web-based cross-sectional survey on Depression and anxiety among university students during the COVID-19 pandemic in Bangladesh and reported that students were experiencing heightened depression and anxiety around 15% of the students reported moderately severe depression, whereas 18.1% were severely suffering from anxiety.

Children's overall development depends on their environment during COVID, it was a great challenge for parents to maintain the normal physical and psychological health of their children. Unfavorable conditions push children into unpleasant states of mind that increase the risk of disturbance in mental health. A rapid systematic review has been done to find the impact of quarantine on children's and adolescents' mental health adolescents and measures to improve psychological outcomes of isolation (Imran N. et al, 2020).

Globally, the pre-lockdown learning of children and adolescents predominantly involved one-to-one interaction with their mentors and peer groups. Unfortunately, the nationwide closures of schools and colleges have negatively impacted over 91% of the world's student population (Bobade PM et al, 2022).

The home confinement of children and adolescents is associated with uncertainty and anxiety, which is attributable to disruption in their education, physical activities, and opportunities for socialization (Jiao et al., 2020). The absence of a structured school setting for an extended period of time causes disruption in routine, boredom, and a lack of innovative ideas for engaging in various academic and extracurricular activities. Some children have expressed lower levels of effect

because they are unable to play outside, meet friends, or participate in in-person school activities (Zhai and Du, 2020).

These children have become clingier, attention-seeking, and more dependent on their parents due to the long-term shift in their routine. It is assumed that children might resist going to school after the lockdown gets over and may face difficulty in establishing rapport with their mentors after the schools reopen. As a result, the restriction on their freedom of movement can have a long-term negative impact on their overall psychological well-being (Lee, 2020).

School routines are important coping mechanisms for young people with mental health issues. When schools are closed, they lose an anchor in life and their symptoms could relapse. "Going to school had been a struggle for [some children with depression] prior to the pandemic, but at least they had school routines to stick with", said Zanonchia Chiu, a registered clinical psychologist working with children and adolescents in Hong Kong, where schools have been closed since Feb 3. "Now that schools are closed, some lock themselves up inside their rooms for weeks, refusing to take showers, eat, or leave their beds." For some children with depression, there will be considerable difficulties adjusting back to normal life when school resumes. Students in their final years are anxious about the job market they are going to enter soon. "College students are more vulnerable than we think, especially with the current academic and financial burden," said Chiu.(Lee, 2020))¹¹

METHOD AND MATERIAL

Data source

The survey was conducted in September 2021 when students completed their 12th and started searching for good professional courses in different universities outside of Uttarakhand. In this study, they were included as the target population. Online platforms such as Google Forms were used to create a questionnaire that was used to collect basic information about students and their anxiety related to their future.

Sampling technique

For collecting information, a snowball sampling technique was used where participants were asked to share the e-questionnaire with their classmates and friends. Informed consent was given by each student to be part of this study, which was attached to the e-questionnaire.

Ethical issues

There is no ethical issue. The participants responded after accepting informed consent for the online survey. In the consent form, the purpose of research and confidentiality of information was early mentioned.

Measures

Basic information includes the age of students from 17 to ≥ 20 (17-18, 18-19, 19-20, >20), students' gender (male, female and their preference to disclose gender), their religion (Hindu, Muslim, Sikh, Christian, and others), types of the school board (Uttarakhand board of secondary education, central board of secondary education, council for the Indian school certificate examinations), and living arrangement (alone, with parents, with relatives, with friends).

Anxiety was evaluated by the modified BAI inventory. This inventory contains 21 items that are used to screen students aged 17 or older for anxiety. This instrument employs a Likert-type scale of 0 to 3; "0 = Not at all," "1 = Mild," "2 = Moderate," and "3 = Severe." These items are categorized as not at all, mild, moderate, and severe. These categories contain scores of 0 for not at all, 1 for mild, 2 for moderate, and 3 for severe anxiety related to success. The Inventory has good internal consistency with test and retest correlation ($r = 0.7$). This scale is designed for >17 years old, it is an appropriate scale to assess anxiety in the age group included in this study.

STATISTICAL ANALYSIS

Result of descriptive statistics

Table 1 shows the descriptive information of different selected variables of the School

student in Uttarakhand. The majority of the population falls in the category of the 18-19 yr. of age group. Compared to males females were more about 54%. Out of the 95% were living with their parents. 87% of students were from the Central board of secondary education.

Table 2 demonstrates the prevalence of futuristic anxiety in the students who passed 12th during the Covid pandemic. Out of the total 39 participants, 6 (15%) didn't show any kind of anxiety, 8 (21%) were found to have mild anxiety, 19 (49%) were found with moderate anxiety and 6 (15%) were found with severe anxiety.

Table 1: Demographic characteristics of the sample

S. No	Demographic variables			
	Variables	Category	F	%
1	Age	17 - 18yrs	15	38.5
		18 - 19yrs	20	51.3
		19 - 20yrs	3	7.7
		> 20yrs	1	2.6
2	Gender	Male	18	46.2
		Female	21	53.8
3	Religion	Hindu	37	94.4
		Sikh	-	-
		Christian	2	5.1
		Muslim	-	-
		Others	-	-
4	Types of school board	Uttarakhand board of secondary education	1	2.6
		Central board of secondary education	34	87.2
		Council for the Indian school certificate examination	4	10.3
5	Living arrangement	Alone	-	-
		With parents	37	94.9
		With relatives	1	2.6
		With friends	1	2.6

Table 2. Level of anxiety and frequency

Anxiety	Frequency	Percentage
Not at all	6	15%
Mild	8	21%
Moderate	19	49%
Severe	6	15%

DISCUSSION

Through this study, we tried to find out anxiety among school students who passed their 12th standard during the Covid pandemic. Mild anxiety is good to make student focus on their goal related to the future. Current study findings

Table 3. Average level of anxiety

S. No.		Mean	SD	Min Score	Max Score
1.	Level of Anxiety	19	8.16	3	35

Table 4: Association of the level of anxiety with socio-demographical variables

S. No.	Anxiety Score			Anxiety Score				Association with knowledge score			
	Variables	Category	F	Not at all 6	Mild 8	Moderate 19	Severe 6	df	Chi-square	P value	Significance
1	Age	17 – 18yrs	15	3	3	6	3	9	16.92	4.05	Not significant
		18 – 19yrs	20	2	5	10	3				
		19 – 20yrs	3	1	0	2	0				
		> 20yrs	1	0	0	1	0				
2	Gender	Male	18	4	7	6	1	3	7.82	10.22	Significant
		Female	21	2	1	13	5				
3	Religion	Hindu	37	6	7	18	6	12	21.03	1.53	Not Significant
		Sikh	-	0	0	0	0				
		Christian	2	0	1	1	0				
		Muslim	-	0	0	0	0				
		Others	-	0	0	0	0				
4	Types of school board	Uttarakhand board of secondary education	1	0	0	1	0	6	12.59	10.89	Not Significant
		Central board of secondary education	34	4	8	18	4				
		Council for the Indian school certificate examination	4	2	0	0	2				
5	Living arrangement	Alone	0	0	0	0	0	9	16.92	2.22	Not Significant
		With parents	37	5	8	19	5				
		With relatives	1	0	0	0	1				
		With friends	1	1	0	0	0				

show that 21% of students were suffering from mild anxiety, 49% perceived moderate levels of anxiety, and 6 experienced severe anxiety related to their futuristic opportunities. In India, a student's rest of the life is solely based on the 12th board exams. Thus, the fear of the future pushes the students under tremendous stress which reflects in their behavior.

The above finding is supported by descriptive cross-sectional study conducted in the Gaza Strip in Palestine. Study was carried out in a sample size of 420 primary and secondary school students and The results revealed that most of the students experienced anxiety as well as depression including moderate to severe levels i.e. (89.1%) and depression (72.1%), whereas less than half of them (35.7%) experienced moderate to severe stress. Score for stress, anxiety and depression were significantly different across gender, age, size of family, and economic status of family.

CONCLUSION

Because of anxiety student suffers from several negative psychological, physical, and emotional symptoms which negatively affect students' mental health and results in low self-esteem. The main aim of this study is to address the anxiety of 12th-standard students regarding futuristic opportunities during COVID-19. The results of this study provide results related to the mental pressure of students during such a crucial time related to futuristic opportunities.

SOURCE OF FUNDING: SELF

CONFLICT OF INTEREST: NIL

ETHICAL CLEARANCE

Study is permitted by the Ethical Committee of the college. Consent of all the participants is secured ahead of their responses.

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Effective Strategies of Planned Teaching program on Breast Engorgement among Primi Mothers

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How to cite this article: Lavanya K, Shaji JCH. Effective Strategies of Planned Teaching program on Breast Engorgement among Primi Mothers. 2023;11(1):7-13.

ABSTRACT

Background: Breast feeding is not easy but it is worthy; since it provides all nourishment to baby needs, the primi women need to be responsible mother, so as to best support the health of her generation.

Objective: Thus this article studies about the effective strategies of planned teaching program on Breast engorgement among primi mothers.

Research Design: A pre- quasi experiment with one group pre-test and post-test design was used to evaluate the structured teaching programme knowledge regarding prevention of breast engorgement among primi mothers conducted at G.V. Annai hospital, Villapakkam, (2021-2022).

Methodology: 160 primi mothers who satisfied the inclusion criteria were selected as sample using probability sampling techniques; planned teaching was given the pre-test and post-test level of knowledge on Breast Engorgement assessed by using structured questionnaire.

Results: The major findings indicated that primi mothers had inadequate knowledge. The findings revealed that the mean pre-test level of knowledge of Breast Engorgement among the primi mothers was 20 with the SD of 5.84 and mean post-test level of knowledge among the primi mothers 28 with the SD of 5.06 the calculated 't' value was 31.84 which was significant at $p < 0.05$ level. The findings revealed that there was a high statistical SD is level of knowledge of Breast Engorgement among primi mother, further the analysis revealed that the demographic variables showed statistically no significant association of mean difference level of knowledge of Breast Engorgement among primi at $p > 0.05$ level.

Conclusion: The results revealed that there was an enhancement with the level of knowledge after giving the planned teaching program on Breast Engorgement among primi mothers. Thus the planned teaching program on Breast Engorgement among primi was an effective technique, further more intervention studies should be carried out for improving the knowledge regarding prevention of breast engorgement.

Keywords: Breast Engorgement, Primi gravida, Planned teaching program, Level of significance.

INTRODUCTION

As Clevis said "Breast feeding may not be the right choice for every parent, it is the best choice for every baby", breast milk provides the ideal nutrition for infants. The American academy of paediatrics says breast feeding also plays a role in the prevention of SIDS¹.

Engorgement leads to swelling and distension of the breast, usually in the early days of initiation of lactation, caused by vascular dilation as well as the arrival of the early milk⁵. Engorgement symptoms occurs most commonly between days 3 and 5 with more than two third of women with tenderness on day 5 but some as late as days 9 and 10, two

third of women experience at least moderate symptoms³.

One difficulty when evaluating incidence and treatment option for this condition involves the spectrum of engorgement from expected physiologic breast fullness through severely symptomatic engorgement². Additionally more optimal lactation management and support in some institutions may reduce the frequency of significant symptoms compared to less supportive environment⁴. Similarly to overcome this we have to handle effective strategies and various planned teaching program on Breast engorgement among primi mothers⁹.

SIGNIFICANCE OF THE STUDY

The strategies insight into various aspects related to study, which in turn develops the link between the previous knowledge and the current article enables to study the various problems encountered during planned teaching program and helps by its direction in finding ways to increase the effectiveness of data analysis and their interpretation related to exclusive breastfeeding knowledge and practices⁷.

Rajni sharma (2018) conducted a study of effectiveness of chilled cabbage leaf application on breast engorgement among post-partum. Quasi experimental non randomized control group research design utilized for this study sample consisted of 60 post-partum women's who satisfied the inclusion and exclusion criteria of the study. Of 60 post-partum women's 30 assigned to experimental group with chilled cabbage leaf application and 30 to control group with warm water compression. Post test data collected after the intervention. The results showed that both chilled cabbage leaf application and hot compression over breast equally effective relieving pain engorgement.

Kumar K and Agrawal (2019) conducted a study to assist the breast feeding knowledge and practices amongst mothers in a rural population of North India. In six villages of Panchkula district of Haryana, all the

mothers of infants between 0-6 months were interviewed using a pretested semi-structured questionnaire. Sample size was 77 mothers. The result was that, 30% of them were breast fed upto 4 months exclusively and only 10% exclusively breast fed their infants till 6 months of age. There was good attachment in 42%. Mother-infant pairs and infants were held in 'correct position' by 62% of mothers. 39% of the mothers had 'satisfactory' breast feeding knowledge. It was concluded that lack of breast feeding counselling was significantly associated with decreased rates of EBF.

Singh (2017) conducted a study with the objective to describe and explain the factors influencing breast feeding practices Mysore city, and the secondary objective was to compare the breast feeding practices of lactating mothers attending well baby clinic with their selected personal variables. Lactating mothers were included in the study and data collected using the pre-tested questionnaire on breast feeding practices. The study shows that 74.29% of percentage of the mothers initiated breast feeding, more than 50% used pre-lacteal feeds, 36% had discarded the colostrum and the majority of mothers had followed hygienic practices while feeding the child. It was concluded that need for the breast feeding intervention programs especially for the mothers.

Syed E Mahmood (2019) conducted a cross-sectional study to assess the infant feeding practices in the rural population among the Northern India. Study was carried out in randomly selected villages of the Bhojipura Block of Bareilly district, Uttar Pradesh. Sample size was 123 women. Data collection was done by the interviewed in a house-to-house survey. The study had revealed that the low awareness rate. About 47.2% of the respondents were not aware of the benefits of exclusive breast feeding. A majority (69.9%) of the mothers did not receive advice on child feeding. It was concluded that pre-lacteal feeds affects the infant feeding practices. Thus the variation studies and findings imply that adequate level of knowledge regarding

Breast Engorgement is to be initiated to all the participant mothers to prevent complications.

METHODOLOGY

A total number of 160 primi mothers admitted to postnatal unit of GV hospital, Villapakkam from Jan 2020- May 2022, who satisfied the inclusion criteria were selected. Parental informed consent was obtained for each patient before enrolment in the study. After enrolment, a checklist consists of infant's weight, laboratory tests, maternal and neonatal history was filled. The results of the breast examination were also recorded. A pre-quasi experiment with one group pre-test and post-test design was used to evaluate the structured teaching programme knowledge regarding prevention of breast engorgement among primi mothers conducted at G.V. Annai hospital, Villapakkam, (2021-2022).

Quantitative research approach was considered to be the most appropriate method to achieve the lot of objects based on this; the research was designed with quasi-experiment prior to one group pre-test and

post-test, where, O1 assess the pre-test level of knowledge on breast engorgement among primi mothers, X indicated the planned teaching program and O2 assess the post-test level of knowledge of breast engorgement among primi mothers.

Three kinds of variables were applied: 1) Independent variables to know the knowledge of the primi mothers on breast engorgement, 2) Dependent variables to compile planned teaching program on breast engorgement and finally 3) Demographic variables to know the age, education status, type of family, area of residence, religion, occupation and income. Non-probability purposive sampling technique was used for this study, the inclusion criteria included primi mothers with regular antenatal visit, willingness and communication based on language either Tamil or English.

A semi-structured questionnaire was prepared based on knowledge about breast engorgement was given to collect the data, three kind of scoring key tools: Inadequate knowledge, Moderate knowledge and

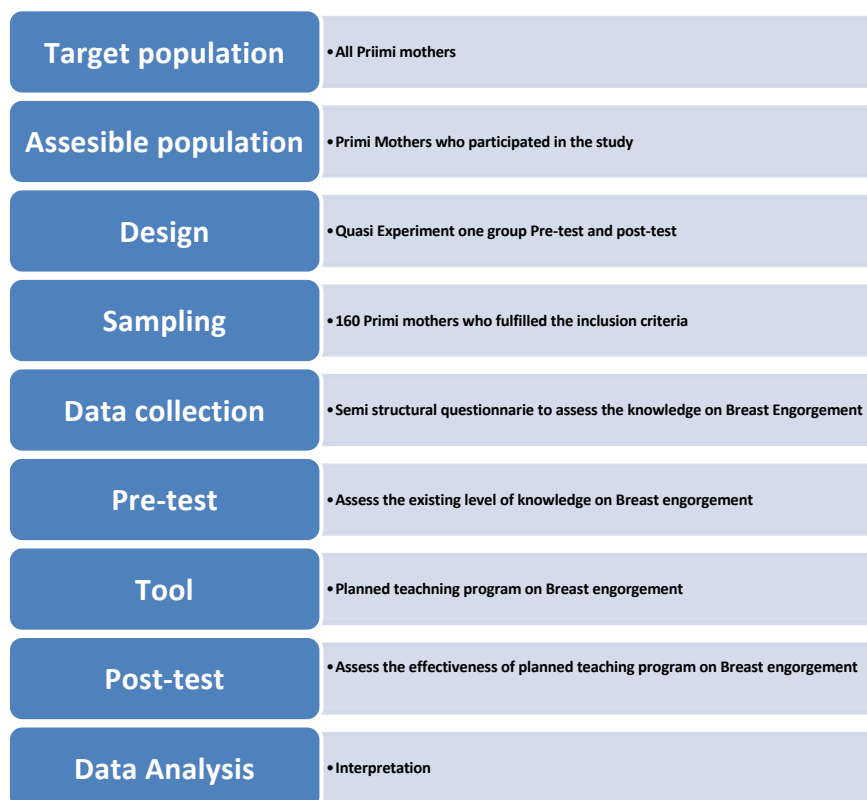


Figure 1: Schematic representation of methodology

Adequate knowledge with a scores 0-8, 9-14 and 15-20 were applied. The total score of item was 20. The validity was obtained from the nursing experts, reliability of tool was determined for establishing an assessing the level of knowledge on breast engorgement among primi mothers.

Finally, to analyse the demographic variables like frequency and percentage distribution descriptive statistics method was used, similarly, the inferential statistics included t-test to study the effectiveness of planned teaching program on breast engorgement followed by chi-square to associate the demographic variables with knowledge on breast engorgement.

RESULTS

As we discussed above, the findings was based on the descriptive and interferential statistical analysis and was tabulated in four levels:

- 1) Descriptive of frequency and percentage distribution of demographic variable among primi mothers,
- 2) Assessment of frequency and percentage distribution on pre-test and post-test level of knowledge on breast engorgement among primi mothers,
- 3) Comparison of the pre-test and post-test level of effectiveness of planned teaching program among primi mothers,
- 4) Association of post-test level of knowledge with demographic variables among primi mothers.

The Table 1 shows that majority 70 (43.75%) were age group of 22-25years, 78 (48.75%) were Graduated, 97 (60.63%) were from joint family, 136 (85%) belonged to rural area, 87(54.37%) were Hindus, 98(61.25%) are semi-professional and 104 (65%) from moderate family status.

From the Table 1 resulted values, the frequency and percentage distribution was calculated , observed and marked where it stated, that in pre-test level of knowledge,

majority of mothers 107(66.87%) had moderate knowledge and 13(8.13%) had adequate knowledge, where 40(25%) of them had Inadequate knowledge on breast engorgement, we just relied on special focus on them in planning and teaching program with huge concern for post-test level of knowledge.

Table 1: Frequency and percentage distribution of demographic variable

S. No	Demographic Variables	Frequency (n)	Percentage (%)
1	<i>Age of Mother</i>		
	18-21 years	12	7.5
	22-25 years	70	43.75
	26-30 years	32	20
	> 30 years	46	28.75
2	<i>Education</i>		
	Graduate	78	48.75
	HSSC	59	36.87
	SSLC	18	11.25
	Illiterate	5	3.125
3	<i>Type of Family</i>		
	Nuclear	97	60.63
	Joint	63	39.37
4	<i>Area of Residency</i>		
	Urban	24	15
	Rural	136	85
5	<i>Religion</i>		
	Hindu	87	54.37
	Christian	21	13.12
	Muslim	44	27.5
	Others	8	5.0
6	<i>Occupation Profession</i>		
	Semi-profession	7	0.043
	Skilled worker	98	61.25
	Unemployed	9	5.63
		46	28.75
7	<i>Socio-economic Status</i>		
	Low <10,000	32	30
	Moderate 10,000-20,000	104	65
	High>20,000	24	15

After major section on few strategies and planned teaching program among primi mothers, observations was done with post-test level of knowledge where, majority of mothers 84 (52.5%) had moderate knowledge and 69(43.13%) had adequate knowledge, where 7(4.37%) of them had Inadequate knowledge on breast engorgement.

The table 2 represents that in pre-test, the mean score was 20 with SD 5.84 and in post-test the mean score was 28 with SD 5.06. The calculated t- value was 31.84 which was

statistically highly significant at $p < 0.001$ and clearly indicate that there was significant improved level of knowledge.

The above Table 3 represents that the demographic variables (Occupation) had shown high significant association with the level of knowledge and the other variables such as Age, Education, Type of family, Area of residence, Religion and Socio-economic status had shown statistically non-significant association with the level of knowledge.

Table 2: Comparison of the pre-test and post-test level of knowledge

S. No	Test	Mean	Mean Difference	SD Value	SD Difference	t-value
1	Pre-test	20	8	5.84	0.78	31.84
2	Post-test	28		5.06		

Table 3: Association of post-test level of knowledge with demographic variables among primi mothers

S. No	Demographic Variables	Level of Knowledge			X2 Value	P- value
		Inadequate	Moderate	Adequate		
1	Age of Mother				20.44	P>0.05
	18-21 years	1	7	4		
	22-25 years	1	43	26		
	26-30 years	0	18	14		
	> 30 years	0	12	34		
2	Education				20.44	P>0.05
	Graduate	1	41	36		
	HSSC	0	32	27		
	SSLC	1	10	7		
	Illiterate	0	4	1		
3	Type of Family				20.44	P>0.05
	Nuclear	2	48	47		
	Joint	1	40	22		
4	Area of Residence				20.44	P>0.05
	Urban	2	6	16		
	Rural	4	73	59		
5	Religion				20.44	P>0.05
	Hindu	3	62	22		
	Christian	1	13	7		
	Muslim	1	29	14		
	Others	1	6	1		

S. No	Demographic Variables	Level of Knowledge			X ² Value	P- value
6	Occupation				20.44	P<0.05
	Profession	0	5	2		
	Semi-profession	1	61	36		
	Skilled worker	0	5	4		
	Unemployed	1	27	18		
7	Socio-economic Status				18.39	P>0.05
	Low <10,000	2	19	11		
	Moderate 10,000-20,000	1	71	32		
	High>20,000	2	17	5		

DISCUSSION

The promotion of breastfeeding is a key component of child survival strategies. If all infants were breastfed exclusively during the first six months of life one and a half million deaths among infants could be avoided each year and has the capability to prevent 13% of all under five deaths in developing countries⁶.

A study identified the priority of antenatal nursing care should be informing all pregnant women about the benefits and management of breastfeeding. The present study was taken up in an effort to assess the existing knowledge of primi antenatal mothers on exclusive breastfeeding through the one group with pre-test and post-test⁸. Health education was carried out through structured teaching program on exclusive breastfeeding. A post-test was conducted to identify the effectiveness of the structured teaching program. It was observed on that the knowledge level of the primi antenatal mothers regarding exclusive breast feeding in the post-test¹⁰.

The independent variables of the study were age, religion, education, occupation, family monthly income, type of family, area of residence and source of health information, Whereas dependent variable in the study was the knowledge of the mothers regarding exclusive breast feeding¹².

The Paired sample 't' test was used to compare mean of pre-test and post-test

knowledge score. Therefore null hypothesis was rejected and research hypothesis was accepted. So there is significant improvement in knowledge score can be attributed to the structured teaching program provided as an intervention administered by pre-test and post-test assessment¹⁴, to assess knowledge of the mothers regarding exclusive breastfeeding¹⁵. The result was found that there was inadequate knowledge in areas of time of initiation of breastfeeding (92%), colostrum feeding (56%) and duration of exclusive breastfeeding (38%).

Findings of present study shows that there was statistical significant association of knowledge score with educational status, occupation of mother, area of residence and exposure to previous teaching but there was no statistical significant association of knowledge score with family income, type of family and religion of mother. These Findings were consistent with study conducted by Radhakrishnan S in Tamil Nadu which revealed that various demographic factors like the education of the mother, type of delivery, type of family, occupation, number of children, monthly income, family size, age at marriage and religion had a direct influence on exclusive breastfeeding.

CONCLUSION

In the pre-test, majority of the mothers had low knowledge regarding exclusive breastfeeding.

After the implementation of structured teaching program in post-test half of the mothers gained high knowledge. There was a significant association was found between the knowledge of the primi antenatal mothers regarding exclusive breastfeeding with the selected socio demographic variables like age, educational status, occupation, type of family, income, area of residence and previous information.

NURSING IMPLICATIONS

The nurse administrator should organize in service education program for the staffs to get update with the strategies in breast feeding education. The nurse administrator should motivate the health care professionals to organize the awareness campaigns to the antenatal mothers and the postnatal mothers by providing adequate information about the development of healthy breast feeding advantages and techniques. Nurse administrator should also involve the mass media to take part in the educational program regarding breastfeeding. The nurse administrator should plan for the education for the working and non- working group. The teaching sessions can be videotaped and played for the mothers who are waiting at the outpatient department .Nurse administrator should also motivate and develop interest in the primi antenatal mothers for breastfeeding.

Ethical Clearance: Since this article is about awareness programme among primi mothers there is no need for ethical clearance.

Source of funding: Self.

Conflict of Interest: NIL.

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Case Study: A rare case report of 39 years old Female with Polyostotic Fibrous Dysplasia

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How to cite this article: Godiyal P, Joshi A. Case Study: A rare case report of 39 years old Female with Polyostotic Fibrous Dysplasia. 2023;11(1):14-17.

ABSTRACT

Fibrous dysplasia (FD) is a rare bone disorder in which the affected bone is replaced by abnormal scar-like (fibrous) connective tissue. This abnormal fibrous tissue makes the bone weak, abnormally fragile and prone to fracture. Pain may occur in the affected areas. This condition was first described in 1942 by Lichtenstein and Jaffe, is also referred as Lichtenstein-Jaffe disease. Anyone can have FD and it can be diagnosed at any age. FD can affect one bone (known as monostotic FD), multiple bones (known as polyostotic FD) or the entire skeleton (known as panostotic FD). The treatment of FD depends on diagnostic testing, number of bones affected and location of affected bones. In some cases, polyostotic fibrous dysplasia can be treated with a class of drugs called bisphosphonates, which prevent bone loss and can reduce pain. Here presenting a case study of 39yrs female with Polyostotic Fibrous Dysplasia.

Key words: Fibrous dysplasia, Monostotic, Polyostotic, Panostotic, Bisphosphonates

INTRODUCTION

Fibrous dysplasia (FD) is a benign (noncancerous) bone condition in which normal bone is replaced by abnormal fibrous tissue. The severity of this disorder varies from one individual to other. Researchers believe that the disorder is caused by a mutation in a gene called *GNAS1*. Improper differentiation of osteoblasts due to mutation of the *GNAS1* gene is believed to contribute to the development of FD. FD can affect one bone (known as monostotic FD), multiple bones (known as polyostotic FD) or the entire skeleton (known as panostotic FD). Pain caused by fibrous dysplasia usually begins as a dull ache that worsens with activity and lessens with rest. Diagnosis is made by

collecting general health and medical history, X-ray shows the ground-glass-like appearance of fibrous dysplasia, MRI or CT scan to further evaluate the lesion, bone scan, biopsy may be necessary to confirm the diagnosis of fibrous dysplasia. Bisphosphonates are given to treat Polyostotic FD which decreases the activity of cells that dissolve bone. They are available in oral form or intravenous (IV) infusions.

CASE REPORT

A 39 yrs old female presents in the OPD of orthopedic Surgery, Srinagar Garhwal on 09/July/2022 with chief complaints of lower back pain, chest pain, hip and legs pain. She reported that she had these complaints with less severity since 3yrs. She is a known

case of hypothyroidism since six months. According to her she was seen for similar symptoms previously at her primary care physician and was treated with Tab. Calcium and analgesics. This management did not improve her symptoms and she has gradually worsened with time. An old X - ray revealed multiple osteolytic lesions in femur and tibia. Doctor advised opinion from oncosurgeon/physician. She went Dehradun city for further opinion and met Orthopaedic surgeon on 14/July/2022. She was advised X Ray of knee Joint AP/Lateral [Fig.1], X Ray of Pelvis [Fig. 2], routine investigations such as complete hemogram, RBS, albumin, globulin, total protein, serum bilirubin, SGOT, SGPT, ALP, Blood urea, serum creatinine, serum uric acid, CRP - Reactive protein, 25 - Hydroxy vitamin -D, serum Protein Electrophoresis, TSH and Urine examination. All parameters were within normal limits except ALP, serum uric acid, CRP - Reactive protein, 25 - Hydroxy vitamin-D and TSH. ALP was raised to 126U/L, serum uric acid was raised to 6.4mg/dl, CRP was raised to 19.0mg/L, 25 - Hydroxy vitamin -D was found deficient i.e.



**Fig 1: X - Ray Knee joint AP/Lateral
14/July 2022**

18.0 ng/ml and raised TSH of 4.80 μ U/ml, mild elevation of alpha 1 and beta 1 regions was observed in Serum Protein electrophoresis [Fig. 3]. MRI of left lower limb showed Multifocal intramedullary T2/STIR hyperintense enhancing lesions with surrounding sclerosis involving the femur and tibia causing medullary expansion, endosteal scalloping and cortical thickening. Findings may be secondary to chronic osteomyelitis. After getting the reports doctor suggested to take opinion from higher centre to confirm the diagnosis.

On 16/July/2022 she went to OPD of Department of Orthopaedics at tertiary hospital of Dehradun. Clinical examination done by the doctor revealed tenderness over middle third tibia in left leg. Doctor advised for investigations i.e., Serum ALP, Calcium, Phosphorus, Parathyroid hormone, ESR and CRP. All parameters were within normal limits except CRP which was raised to 11.31mg/L. X- Ray Chest PA view, X- Ray of both knee with thigh: AP and lateral view, X - ray of both knee with leg: AP and lateral view were advised. X- Ray Chest PA view showed normal study. X- Ray of both knee with thigh: AP and lateral view revealed Left femur showing multiple lytic areas with sclerosis- ? Osteomyelitis?? Fibrous dysplasia. Right knee with thigh appears to be normal. X - Ray of both knee with leg: AP and lateral view showed Lytic areas with sclerosis seen in mid shaft of left Tibia - ? Osteomyelitis?? Fibrous dysplasia. Right knee with leg appears to be normal.



Fig 2. Pelvis with both hip joint 14/July/2022

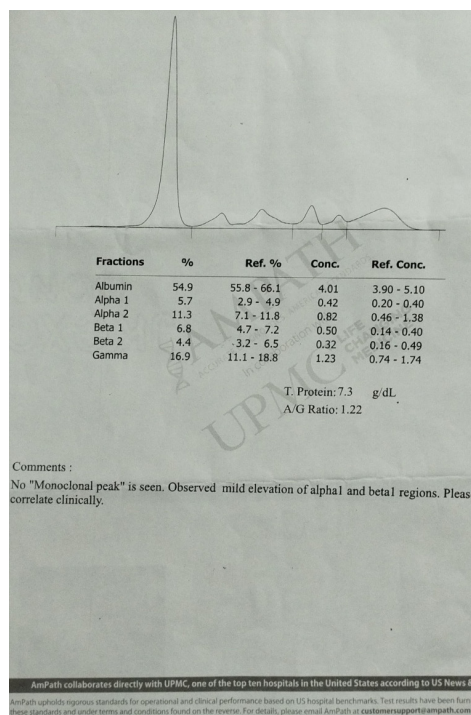


Fig.3. Serum protein electrophoresis

After seeing the reports doctor decided to perform J Needle open biopsy from left leg on 24/July/2022. One day prior she was admitted in the hospital for Pre anesthetic check up and few investigations were done i.e., PT/INR, 12 lead ECG which were found normal. Histopathology report of Left tibia Mid shaft biopsy showed few necrotic bony bits with mild neutrophilic infiltrate. Suggestive of acute osteomyelitis. Furthermore, bone marrow examination was advised by the doctor to rule out involvement of blood cells which was performed on 10/August/2022 and the report was normal. On 17/August/2022 doctor started the treatment with Tab Alendronate Sodium 70mg, once in a week for 4 weeks and instructed not to lie down for half an hour after taking the dose. Tab Shelcal 500mg BD x 1 month was also started.

As she was not satisfied with the treatment so went to OPD of Ortho Department, Tertiary care and Research Centre, Delhi on 29/8/2022. Doctor advised for whole body bone scan. Skeletal Scintigraphy done with 20mCi of ^{99m}Tc -MDP intravenously and Scintiphotographs taken in 3 phases [Fig. 4]. In the first phase (Flow phase) immediate

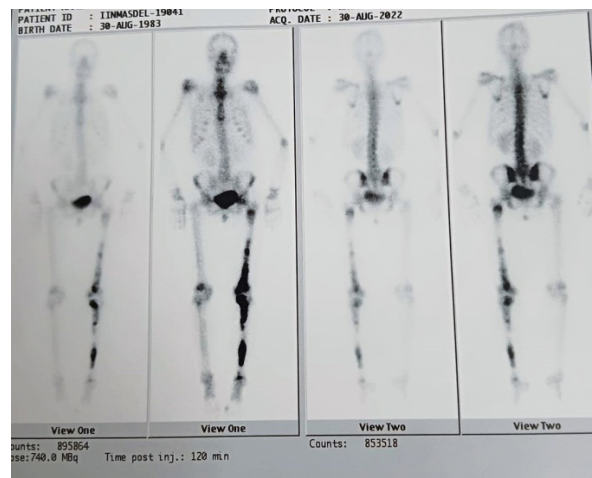


Fig.4. Skeletal Scintigraphy

post injection there was increased flow in the region of Left femur and Left tibia. Second phase (Blood pool phase) 5 min post injection revealed increased pooling in the region of Left femur and Left tibia. Third phase (Delayed phase) 3 hrs post injection showed increased tracer uptake in the region of Left femur and Left tibia. Rest of the axial and appendicular skeleton showed physiological tracer uptake. After report she was diagnosed with Polyostotic Fibro Dysplasia. Doctor advised Inj. Zoledronic acid to be given in OT after adequate hydration and Serum Calcium, Phosphorus, ALP and KFT to be done. On 3/9/2022 Inj Zoledronic acid was given and she was prescribed Tab CCM - OD, Sachet Vit D3 60K IU/week and review after three weeks. On 26/9/2022 she went for follow up and doctor advised Serum Calcium, Phosphorus, ALP and KFT to be done and Inj. Zoledronic acid to be given in OT tomorrow. On 27/9/2022 Inj. was given in 50 ml NS over 1 - 2 hour slowly with 500ml NS pre hydration. Doctor advised Tab. Arkbone CT 1 x BD and Cap Lumia 60K weekly for 4 weeks. Tab PCM 650 mg SOS and review after 3 weeks in Ortho OPD with fresh X - ray.

Followed by two dose of Inj. Zoledronic acid on 19/10/2022 doctor prescribed Tab. Alendronate 70mg weekly and instructed her not to sit or lie down for one hour after taking medicine. Tab Diclo 50mg BD for two weeks, Tab. Calcium 500mg OD, Tab Pantoprazole

40mg OD were prescribed and told to review after one month. She is feeling relieved with the treatment as severity of pain has been decreased.

DISCUSSION

FD was first described in 1942 by Lichtenstein and Jaffe, is also referred as Lichtenstein-Jaffe disease. FD is a benign intramedullary bone lesion in which the normal bone marrow is replaced by abnormal fibro-osseous tissue. This disorder can involve a single bone (monostotic) or multiple bones (polyostotic). The severity and specific symptoms present in Polyostotic fibro dysplasia (PFD) differs from one person to another. Patient with PFD complaints of bone pain, bony tenderness, bony crookedness, endocrine disturbance and dermatological complications. Bone pain and tenderness was present in the client and she had hypothyroidism. The exact cause of FD is not fully understood. Researchers believe that the disorder is caused by a change (mutation) in a gene called GNAS1. In present client there is no family history of PFD or personal history of injury or accident. The disorder is diagnosed at early age but in few cases it goes undiagnosed and identified at adult age. Diagnosis can be made by detailed patient history, clinical evaluation, X-Ray, CT scan, MRI, Bone biopsy, Bone scan. FD may be diagnosed incidentally when receiving an x-ray for another reason. In patient also it was diagnosed accidentally when doctor prescribed X-Ray for pain in legs. The treatment to be given according to the symptoms apparent in patient. Individuals with PFD have been treated with drugs known as bisphosphonates such as alendronate. These drugs reduce bone turnover by inhibiting bone resorption. Calcium and vitamin D may be given along with the drug. Patient also treated with two doses of Inj. Zoledronic acid followed by Tab. Alendronate 70mg weekly with Tab Diclo 50mg BD for two weeks, Tab. Calcium 500mg OD and Tab Pantoprazole 40mg OD.

CONCLUSION

FD is a benign, slowly growing bone disorder in which abnormal fibrous tissue

develops in place of the normal bone. The main complications of FD are pathologic fracture, secondary aneurysmal bone cyst formation, and rarely malignant change. So proper understanding, investigations and management to diagnose such types of cases in initial stages is of prime importance to prevent any kind of complications. We report this case, of polyostotic FD as it is the rarest type and has very less percentage of occurrence of just about 20–25%, it is our attempt to add further knowledge to the literature.

Declaration of patient consent

The author certifies that she had obtained all appropriate patient consent forms. In the form the patient has given her consent for her images and other clinical information to be reported in the journal. The patient understand that her name and initials will not be published and due efforts will be made to conceal her identity, but anonymity cannot be guaranteed.

Financial support and sponsorship: Nil.

Conflicts of interest: There are no conflicts of interest.

Ethical clearance: Ethical committee of College of Nursing, Dehradun.

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Development of Clinical Guideline for Drug Dose Calculation Using the Delphi Method

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How to cite this article: Koshy PA, Sharmil SH, Kumar MS, Rosy M, Gayathri R, Raj JB. Development of Clinical Guideline for Drug Dose Calculation Using the Delphi Method. 2023;11(1):18-23.

SUMMARY

Background: Empirical studies in competence are lacking in the field of Drug dose calculation.

Objective: To construct a clinical guideline for drug dose calculation and to enhance the comprehension of the forthcoming nursing students.

Methods: Two rounds of the Delphi method were used. Data were analyzed by content analysis and with descriptive statistics.

Results: After two sequential sessions of discussion by the Delphi method, a clinical guideline for Drug dose Calculation was constructed. This guideline includes the formulas for Drug dose Calculations. The reliability was achieved by Median and Consensus percentage.

Conclusions: We constructed a clinical guideline for palliative sedation therapy using the Delphi technique. The clinical efficacy of this guideline should be tested in the future.

Keywords: Guideline, Delphi method, Drug dose calculations, Development.

INTRODUCTION

Medication inaccuracy is one of the most frequent types of medical errors that occur in healthcare institutions. Medication errors have also been identified as the most common single preventable cause of adverse events (National Medicines Information Centre, 2007)¹. Safe and accurate medication administration is an essential and potentially provocative nursing responsibility. Medication calculations require

numerical and conceptual calculation skills (Güneş et al., 2016; McMullan et al., 2010; Newton et al., 2009)^{2,3,4}. Nurses enter the profession relatively earlier than other professionals. Before long the final years of Basic B.Sc. (Nursing), the graduates have many lives placed into their hands. The principles of safe medication administration remain the same throughout a registered nurse's career and can be applied as the

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knowledge and complexity of the medications are increased (Shihab, 2009). Therefore if students understand the principles developed from practicing with realistic tasks during their education, they are likely to develop an attitude of reflection and critical thinking which, in turn, will improve their medication safety (Wright, 2008).⁵ Hence it is essential that the graduating nurses acquire adequate comprehension on calculation of drug doses in order to avoid errors in medication administration. A guideline to direct the student nurses may help to avoid the errors caused due to in naivete. The guideline can also be used by the nurses to amend their existing knowledge and ameliorate their current practices of drug dose calculation and administration.

BACKGROUND AND LITERATURE REVIEW

Administration of the medication is an essential nursing responsibility. The Harvard Medical Practice Study and the Colorado-Utah study (1999 Donaldson)⁶ estimated that approximately 44000-98000 deaths are resulted from medical mistakes in hospitals. Park. K15 (2000) says that the basic philosophy of under-fives clinics was to give nurses effective training and responsibility for handling the childcare services. If future nurses are trained accurately, they may be more effective than the interns. According to WHO (2015) there are 65.5 % of nurses are making medication error and there are 1 death per day and 1.3 million injuries occur every year. Dangi Ravi Rai and Sujita Devi (2019)⁷ conducted a descriptive study on the Knowledge regarding pediatric drug calculation among the staff nurses. Structured questionnaire was administered to the staff Nurses. There are 100 Staff Nurses participated in this study. This study revealed that maximum 59% participants scored average knowledge ,24% scored good knowledge and 17% scored poor knowledge. The researcher concluded that there is a great need for improving the knowledge in nurses. Wayne Varndella, Margaret Fryb, Matthew Lutzeb, Doug Elliot (2020)⁸ conducted a study

on Use of the Delphi method to generate guidance in emergency nursing practice. Of 246 data pointed out 22 (8.9%) studies met the inclusion criteria. Eight practice guidance themes were identified. Gross study caliber was high (score 12/14; range 4-13). Based on this review, this study concluded that the Delphi method is an appropriate method for exploring emergency nursing practice. Hence it is essential that the graduating nurses acquire adequate knowledge on calculation of drug doses in order to avoid errors in medication administration. A guideline to guide the student nurses may help to avoid the errors and to improve their existing knowledge and modify their current practices of drug dose calculation and administration. So we here are extending our research to find the best formulas in drug dose calculation and administration to help the upcoming nursing students to gain confidence and comprehension in dispensing medication to the patients.

METHODS

A formal in-depth systematic Qualitative approach was used for this study. The research design adopted for this study was Delphi method. This study aims to understand the drug dose calculations in the hospital settings and to develop a standard guidelines for their practice and provision. The Delphi method is a process used to arrive at a group opinion or decision by surveying a panel of experts. Experts respond to several rounds of questionnaires, and the responses are aggregated and shared with the group after each round. The experts can adjust their answers each round, based on how they interpret the "group response" provided to them. The ultimate result is meant to be a true consensus of what the group thinks. The study was conducted in Chettinad college and hospital, Kelambakkam, Chettinad hospital urban health centre, Karapakkam, Chettinad rural health centre, Poonjeri. The main criterion for the selection of experts include people who had been recognized for their professional knowledge and experience.

No clear rule exists for the number of panel experts and selection criteria in a Delphi study. However, because a Delphi study depends on expert opinions rather than direct data, the composition of the expert panel is crucial for its successful application. The members of the study were selected from the specified settings, nurse 55 and doctors 55 (n=110). The content validity of the items identified through clinical observation and literature review was confirmed by two nursing professors and one head nurse working at a tertiary care hospital. In the first Delphi round, preliminary items for guideline for Drug Dose Calculation was identified through clinical observation and literature were presented, the participants were asked to rate each item on a 4-point Likert scale. In the first Delphi round, in account of the experts' various opinions, the survey items were given to the experts and asked to rate the items and suggest some other formulas used for Drug dose Calculations. Based on this information, items could be revised, deleted, or added. In round two, the researchers analyzed the results of the first Delphi round. Through this process, the experts were able to compare their own responses to those of the other participants. This round provided

opportunities for the experts to reflect, revisit, and revise their opinions and the reliability was checked using the same method. The guideline developed through the first Delphi round was confirmed and adopted as provisional version. The Delphi process was discussed in the Figure 1.

Data Collection

The expert members of the health care team were selected from Chettinad college and hospital, Chettinad urban and rural health centers. It consisted of 55 doctors, 55 nurses. We conducted a detailed survey on the existing guideline of drug dose calculation practiced in the Hospital setting. We used Delphi method to obtain consensus among the group of experts. The researchers formulated the commonly used drug dose calculation formulas in the hospital setting to draft a guideline. Next the guidelines were divided into brief points\sentences and 3 experts were selected for obtaining content validity for the formulated items. After that participants were selected according to their skills and experiences. In First Round, Consent will be obtained from the participant. The participants were requested to rate the validity of each

Table 1: Frequency and Percentage Distribution of demographic variables

<i>S. no</i>	<i>Characteristics</i>	<i>Category</i>	<i>Frequency</i>	<i>Percentage</i>
1	Designation	Doctors	55	50.0%
		Nurses	55	50.0%
2	Department	General Medicine	33	30.0%
		General Surgery	19	17.3%
		Critical care	24	21.8%
		Pediatrics	12	10.9%
		ENT and ophthalmology	11	10.0%
		Orthopedics	11	10.0%
3	Experience of work	1-5 years	65	59.1%
		6-10 years	20	18.2%
		11-15 years	11	10.0%
		Above 15 years	14	12.7%
4	Educational degree	Diploma	13	11.8%
		Bachelors	65	59.1%
		Masters	19	17.3%
		PhD	13	11.8%

item on a 4-point Likert scale from 1 (highly irrelevant) to 4 (highly relevant). In second round, The minimum, median and maximum scores disclosed to each member and the difference in opinions discussed. The revised guideline was further modified according to the results of first round and opinion of the participants. The Reliability is evaluated using the same method. The median value and the consensus percentage were assessed and the major difference was resolved. Finally it is adopted as a Standard guideline for Drug dose Calculation.

ANALYSIS

It deals with analysis and interpretation of the data collected regarding the development of

the guideline for drug dose calculation. Data was summarized by numbers and proportions, and reported according to proposed methodological criteria for Delphi. Descriptive Statistics was performed using SPSS. On the basis of clinical observation, literature review and validation process, 10 items were drafted. In the first round, the participants rated the importance of the items in a 4-point Likert scale (1 =highly irrelevant ;4 =highly relevant. The data gathered was tabulated, analysed, and interpreted using Descriptive Statistics. The required level of consensus was defined in advance. Two necessary conditions had to be fulfilled: (i) A median value of 4 and (ii)A consensus percentage of at least 80%

ROUND -1 (Delphi Process)

Table 2: Measurement of median for reliability.

Items	Number of participants	Median values	Minimum values	Maximum values
1	110	4	2	4
2		4	2	4
3		4	2	4
4		4	3	4
5		4	2	4
6		4	2	4
7		4	2	4
8		3	1	4
9		3	1	4
10		4	2	4

NOTE: The item achieved median value 4, is reliable.

Table 3: Consensus percentage distribution

Items	Total score value	Number of participants	Maximum score	Percentage
1	413	110	440	93.8%
2	404			91.8%
3	398			90.4%
4	402			91.3%
5	400			90.9%
6	397			90.2%
7	384			87.2%
8	336			76.3%
9	319			72.5%
10	383			87.0%

NOTE: The items achieved consensus percentage >80%, is reliable.

(Hasson et al., 2000⁹; Keeney et al., 2001; McKenna,1994¹⁰; Powell, 2003; Williams and Webb, 1994).In second round, the guideline was revised and the median and consensus percentage was found. The data was presented under the following headings, Table1: Frequency and Percentage Distribution of demographic variables, Table 2: Measurement of median for reliability (First Round),Table 3: Consensus percentage distribution (First Round), Table 4: Measurement of median for reliability (second Round), Table 5: Consensus percentage distribution (Second Round).

RESULT

In order to select items for the standard guideline for Drug dose calculation, this study first selected 13 items based on clinical observation, literature review and validation from the experts. Of the items observed in clinical practice, 1 items did not overlap with those found through the literature review and

were thus included in the preliminary items for the standard guideline. The validation of the selected items was confirmed by two nursing professors and one head nurse working at the tertiary hospital. By this process, 3 items were excluded for the preliminary guideline. Finally the preliminary guideline consists of 10items through the above process. In round 1, the draft guideline was given to all members and requested to rate the validity of each item on a 4 point Likert scale from 1 (highly irrelevant) to 4 (highly relevant).The data was analyzed using SPSS. Statistics revealed that out of 10 items,8 items achieved the consensus percentage(>80%).The median value was 4(8 items) and 3 (2 items).The difference between the minimum and maximum was 2 or less in 8 items and 3 in 2 items Items which failed to achieve the consensus percentage(80%) and median value of 4 is excluded(2 items) for the next round. The excluded items were: Fried's rule and young's rule calculation. The

ROUND-2 (Delphi process)

Table 4 :Measurement of median for reliability

Total Items	Number of participants	Median values	Minimum values	Maximum values
1	110	4	3	4
2		4	3	4
3		4	2	4
4		4	2	4
5		4	2	4
6		4	2	4
7		4	2	4
8		4	2	4

Note: Items achieved median value 4,is reliable.

Table 5 : Consensus Percentage distribution

Items	Total score value	No of participants	Maximum score	Percentage
1	417	110	440	94.7%
2	405			92.0%
3	407			92.5%
4	405			92.0%
5	401			91.1%
6	416			94.5%
7	406			92.2%
8	409			92.9%

NOTE: The items achieved consensus percentage >80%, is reliable.

median, minimum, and maximum values were disclosed to each member, and the differences in opinions were discussed and resolved. Then the revised guideline was divided into 8 items and the validity of the items evaluated by the same method. In second round, all 8 items achieved the consensus percentage (80%) and median value of 4 and the difference between the minimum and maximum was 2 and less. Finally the researcher determined that the major difference had been resolved, and the revised guideline adopted as a Standard Guideline for Drug dose Calculation. The results of the first and second Delphi rounds are shown in the table 2, table 3, table 4 and table 5.

CONCLUSION

Through the Delphi process we identified 8 standard drug dose calculation guidelines which key stakeholders considered to be both important and reliable for Drug dose calculation. These guidelines may be helpful in providing practical direction for drug dose calculation and administration. The results of this study can be used in nursing education in three main areas: (i) in self and peer evaluation in discussions on professional development between nursing administrations and nursing staff, (ii) in basic and continued education and orientation programmes and (iii) in ensuring quality management in both nursing staff development and patient safety. The nurses should be periodically evaluated to assess their knowledge and practices regarding drug dose calculations.

Conflict of Interest: Nil

Source of Funding : Self

ETHICAL CLEARANCE: The research was conducted according to established ethical guidelines (Pauwels, 2007). The UG Committee clearance and Institutional Ethical Committee clearance was obtained from CARE. Institutional.

The purpose of the study was explained to the participants and obtained written consent. The participants were reminded that they may withdraw their participation whenever they wished and the study results will be used solely for research purposes.

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A Study to Assess the Stress and Coping Strategies among Women with Chronic Disease at Selected Hospital in Kelambakkam

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How to cite this article: Prithish. S, Mohanapriya. A, Radhika. M, Mohammed Riyas. C, Subalakshmi. J, Lakshmi. R. A Study to Assess the Stress and Coping Strategies among Women with Chronic Disease at Selected Hospital in Kelambakkam. 2023;11(1):24-27.

BACKGROUND

Background: A sound mind is in a sound body'. A sound body means a healthy body with absence of diseases. A sound mind means a mind capable of doing good, positive and should have a free thinking capacity. Chronic illness poses a significant challenge to successful coping because chronic illness induces stress on an already vulnerable individual. The prevalence of stress among women is 89%. 41.9% of women suffer from depressive disorders and 33% from general mental health problems and dementia because of chronic diseases.

Aim: The aim of the study is to assess the level of stress and coping strategies among women with chronic diseases.

Materials and methods: A pre-test of descriptive design will be used for the study. 30 women with chronic disease will be selected by using Non-Probability convenient sampling. Health Education will be administered after the pre-test.

Results: The stress, coping strategies and quality of life are interconnected. So it is necessary to know and understand the stress level, coping strategies and quality of life of the women. If we understand the stress levels among women with chronic diseases we can plan some preventive, promotive measures for them. We can help them to understand current situation and how she can cope with all future problems by using some coping strategies which in turn will lead to quality life.

Conclusion: The stress, coping strategies and quality of life are interconnected. So it is necessary to know and understand the stress level, coping strategies and quality of life of the women. If we understand the stress levels among women with chronic diseases we can plan some preventive, promotive measures for them. We can help them to understand current situation and how she can cope with all future problems by using some coping strategies which in turn will lead to quality life.

Keywords: stress, coping strategies, chronic diseases

INTRODUCTION

A sound mind is in a sound body'. A sound body means a healthy body with absence of diseases. A sound mind means a mind

capable of doing good, positive and should have a free thinking capacity. The prevalence of stress among women is 89%. 41.9% of women suffer from depressive disorders and

33% from general mental health problems and dementia because of chronic diseases.

In today's scenario women are multi tasking. They play various roles at home and also at work, thus facing many challenges. In this race of striking a the balance, many women often tend to ignore their own physical and emotional health, personal well-being and fail to give themselves enough attention. Women's health is affected not just by their biology, but also by their social conditions, such as poverty, employment and family responsibilities. (Kotwal & Pal. 2011)^[1]

Woman's role in family and society is an important one. She gives them strength. It is important that she is healthy and free from Stress which eventually leads to Stress free family environment and harmony in the society. The basic requirements of a woman must be met with. Neglecting the woman's health problems will deteriorate her health status.

World Health Organization (2015) reported that the common diseases among women are Anemia, Diabetes, Hypertension, Cancer, Thyroid Disorders, Maternal Problems, and Arthritis, Chronic Kidney Disease and Nutritional deficiencies. Chronic diseases among woman leads to deterioration of her health and she may face further health complications. The widely accepted concept of health according to World Health Organization, it is a complete state of physical, mental and social, spiritual, sexual health and it is not just that there is no disease of infirmity. The mental and social health is very important along with physical health. Mental health is influenced by biological, emotional and social factors and these lead to physical symptoms. Any alteration in all these aspects leads to physical and psychological symptoms.^[2]

World Health Organization and National Health compiled survey (2011-14) shows prevalence of chronic diseases which includes 2% cancer, diabetes mellitus 4%, asthma 10%, chronic mental conditions 11%, arthritis 15% and disorders of the circulatory system 16%.

It was also reported that 80% of the cases were heart disease, paralysis, diabetes and 40% cancer which can be prevented.^[3]

Cancer fact sheets (2011) reported that new cases of breast cancer were 124.5, and death because of breast cancer was 22.6 per 100,000 women per year. Renal, urinary tract disorders leads to approximately 8, 50,000 deaths per year. Chronic renal disease is the 12th leading cause of death and 17th leading cause of disability in the world. As per the reports of United States health agencies from two year 2010-2012, it has been reported that 52.5% million adult males and females suffering diseases like arthritis, rheumatoid arthritis, gout or lupus. This report also shows approximately one out of five suffer from arthritis.^[4]

Ardiel & Pale (2005)^[5] and **Sorensen & Lackmann (1994)**^[6] conducted a study on 13 immigrant women, living with chronic diseases to assess quality of life, coping strategies showed that complications of diseases had an adverse effect on the quality of life.

As per above prevalence of chronic diseases showed that women suffer from many health problems because of chronic diseases. It is very difficult and Stressful for woman living with chronic diseases; many times she neglects her health by not going for a regular checkup and by discontinuing her treatment. The important factors which add to it are that, those no support from the society, family members, and inadequate finances. She may use positive or negative Coping Strategies while trying to cope with chronic diseases. Surviving with these chronic diseases leads to disturbed Quality of Life. These condition takes a toll on her life and she may overcome them or then deteriorate under its burden which is a result of the Coping Strategies used.

MATERIALS AND METHODS

A quantitative approach was used for this study. The research design adopted for this

study was descriptive survey method. Women with chronic diseases from a selected hospital in Kelambakkam. The sample were women with chronic diseases from a selected hospital in Kelambakkam. The sample size was 30 women with chronic diseases. Non-Probability convenient sampling technique will be used. The data was collected in Chettinad hospital, Kelambakkam for a period of two weeks. Formal written consent was obtained and the objectives of the study was explained to the Medical Officer to get his cooperation during the study. Oral consent was obtained from 30 samples that was selected on the basis of convenient sampling technique. First day 30 samples from inclusion criteria was selected from Female Medical Ward and Female Ortho Ward. Demographic profile of each subject was obtained by using a structured interview schedule. After obtaining written consent, investigators have checked the stress and coping strategies. After the assessment, investigator gave health education regarding stress management and how to improve coping strategies to the samples.

FINDINGS

Based on age 33.3% (n=10) of women were between 30 to 40 years of age, Based on the educational status 43.3% (n=13) of women had done their Primary education and 10% (n=3) of women had done their Secondary education. Based on the occupational status 63.3% (n=19) of women were housewives and 26.7% (n=8) of women were employees in various Private companies. Considering the nature of their work, 23.3% (n=7) of women were Sedentary workers, the remaining 63.3% (n=19) women were Housewives. Based on the marital status 80% (n=24) of women were married, 13.3% (n=4) of women were unmarried. Considering their monthly income, 13.3% (n=4) of women earn less than Rs10,000 per month and 63.3% of women did not have any source of income since they are housewives. Considering their residence 50% (n=15) of women reside in rural area and 50% (n=15) of women reside in urban area. Based on the family type 73.3% (n=22) of women are living in a Nuclear

family and 26.7% (n=8) of women are living in a Joint family. Considering the type of illness 43.3% (n=13) of women are suffering from Renal diseases and 33.3% (n=10) women are suffering from Metabolic diseases. Based on the duration of illness, 16.7% (n=5) of women are suffering from chronic illness less than 1 year, and 23.3% (n=7) of women are suffering from chronic illness for more than 5 years. Considering the monthly expenses, 50% (n=15) of women are spending more than Rs6000 per month for their treatment (Figure. 1 to 5).

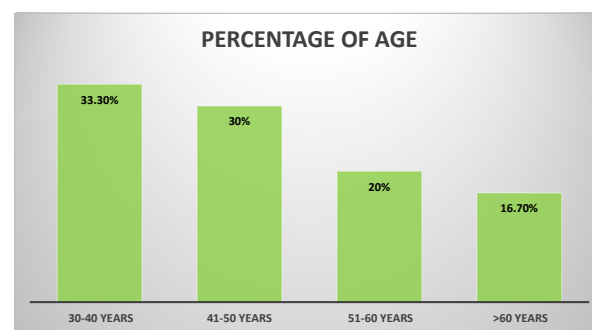


Fig.1: Percentage distribution of sample based on age

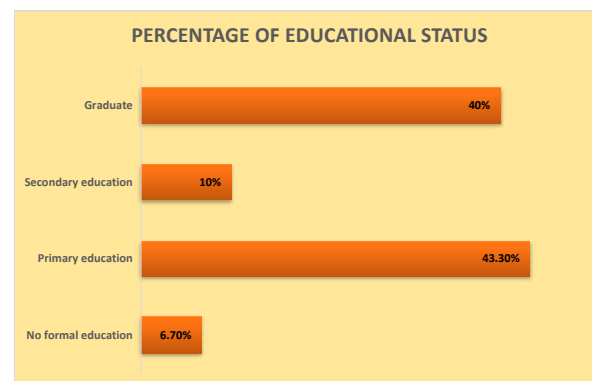


Fig. 2: Percentage distribution of sample based on educational status

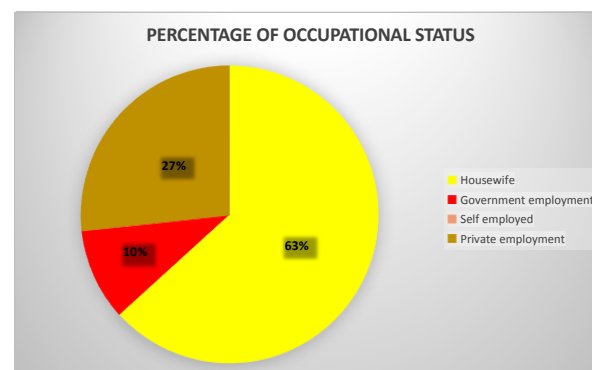


Fig. 3: Percentage distribution of sample based on occupational status

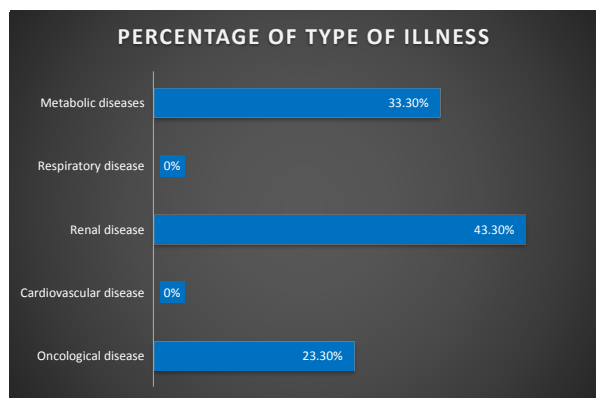


Fig. 4: Percentage distribution of samples based on type of illness

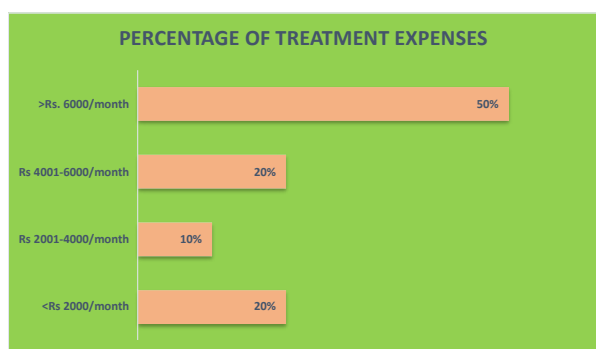


Fig. 5: Percentage distribution of sample based on educational status

ASSOCIATION OF LEVEL OF STRESS WITH DEMOGRAPHIC VARIABLES

The association of the level of stress among women suffering from chronic illness based on their selected socio demographic variables. A significant association was found between the level of stress and the demographic variables including occupational status, nature of work and residence at 5% level of significance ($p < 0.05$) and no significant association was found between the remaining demographic variables.

ASSOCIATION OF LEVEL OF COPING WITH DEMOGRAPHIC VARIABLES

The association of the level of coping from stress among women suffering from

chronic illness based on their selected socio demographic variables and no significant association was found between the level of coping and demographic variables.

CONCLUSION

The stress, coping strategies and quality of life are interconnected. So it is necessary to know and understand the stress level, coping strategies and quality of life of the women. If we understand the stress levels among women with chronic diseases we can plan some preventive, promotive measures for them. We can help them to understand current situation and how she can cope with all future problems by using some coping strategies which in turn will lead to quality life.

CONFLICT OF INTEREST- Nil

SOURCE OF FUNDING- Self

ETHICAL CLEARANCE- Chettinad Academy of Research and Education, Institutional Human Ethics Committee on 11.04.2022.

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A Study to Assess the Effectiveness of Video Assisted Teaching on Knowledge Regarding Neonatal Resuscitation among Pediatric Nursing Students in Selected Nursing College at Chengalpet District

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How to cite this article: Begam SR, Suganthi S, Thomas A , Yadav KJ , Priya RS , Surendhiran N. A Study to Assess the Effectiveness of Video Assisted Teaching on Knowledge Regarding Neonatal Resuscitation among Pediatric Nursing Students in Selected Nursing College at Chengalpet District. 2023;11(1):28-32.

BACKGROUND

Background: The knowledge on neonatal resuscitation is very much essential for nurses. Our study is to assess knowledge among the pediatric nursing students in Selected Nursing College at Chengalpet district. The objectives were to assess the level of knowledge on neonatal resuscitation among pediatric nursing students, and to determine the effectiveness of video assisted teaching regarding neonatal resuscitation by post test among the pediatric nursing students. And to find out the association between the pre and post test knowledge score regarding neonatal resuscitation among pediatric nursing students with they selected socio-demographic variables.

Materials and Methods: Purposive sampling technique is used to select 95 samples of 3rd year BSc nursing students. The data were collected by self administered questionnaire. The collected data was tabulated and analyzed.

Results : Descriptive and inferential statistics methods were used. The study shows that 50.5% of pediatric students had inadequate knowledge, 46.3% of pediatric students had moderate knowledge, 3.2% of pediatric students had adequate knowledge in pretest. And in post-test, 1.1% of pediatric students had inadequate knowledge, 7.4% of pediatric students had moderate knowledge and 91.6% of pediatric students had adequate knowledge.

Discussion: There was significant association between the knowledge and demographic variables like age, gender, Procedure seen or not, Experience got from.

Keywords: Video-Assisted teaching, knowledge, Neonatal Resuscitation.

INTRODUCTION

Birth of a healthy neonate baby is one among the greatest gifts of the nature. The mechanism

of the birth takes only some hours, but it's the finest of life. It's the most precarious period of life, it is related to the largest number of

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deaths as compared to any others phase of life¹. Neonatal resuscitation may be a means to revive a child from asphyxia. It's a single intervention of birth asphyxia. The major cause of early neonatal death is neonatal asphyxia, which may be prevented by neonatal resuscitation². Caring for a replacement born baby during a essential component and must be done in an effective and supportive manner³. Through the need for resuscitation can be anticipated in some situations in many instances a baby is born in poor condition without forewarning newborn resuscitation may be a complex procedure that requires the use of specialized knowledge and skills in an emotionally charged and stressful situation. Knowledge about newborn resuscitation and good performance skill is significant for the implementation of neonatal resuscitation⁴. Worldwide, annually 5 million neonates die. Birth asphyxia is liable for 20% of these death of the 26 million infants born in India per annual 4-6% fail to experience spontaneous breathing at birth and suffer from asphyxia. Timing and appropriate management of asphyxiated babies at birth can save them and supply a better quality of life among-est survivors, without any neurological sequence. The need for resuscitation of newly born infant can be predicted, such circumstance may arise suddenly and should occur in facilities that do not routinely provide neonatal intensive care⁵. A transition from placenta gas exchange during a fluid filled intrauterine environment to spontaneous breathing of air in an extra-uterine environment requires unique physiological change in the infant during first hours of birth⁶. During intrauterine life, the fetal lungs are crammed with fluid and they do not serve any ventilation purpose. Since the placenta supplies the oxygen to the fetus the blood flow through the lungs is markedly diminished thanks to constricted arterioles and right to left shunt through the ducts arterioles during fetal life. During the fetal life, the lungs are immature soon after the birth the baby on adopt the extra uterine life. Blood is oxygenated and exchanged in placenta and its returned to fetus through

vena umbilicus. At the birth when the duct cut, the baby on establish its own respiration. Hence some newborn need help during this transition⁷.

STATEMENT OF THE PROBLEM

A Study to assess the effectiveness of video assisted teaching on knowledge regarding Neonatal resuscitation among Pediatric nursing students in Selected Nursing College at chengalpet district.

OBJECTIVES OF THE STUDY

1. To assess the level of knowledge regarding neonatal resuscitation by pre test score among Pediatric Nursing Students
2. To determine the effectiveness of video assisted teaching regarding neonatal resuscitation by post test among Pediatric Nursing Students.
3. Find out the association between the pre & post test knowledge score regarding neonatal resuscitation among Pediatric Nursing Students with their selected socio-demographic variables.

METHODOLOGY

Keeping in mind the objectives of the study the Quasi experimental one group pre-test & post-test research design was used as it lays the base for future rigorous research. Purposive sampling technique was used to select 95 B.Sc Nursing 3rd year students in Chettinad College of Nursing at chengalpet district .The tool was developed and used for data collection contained socio-demographic data (4 variables), and structured knowledge questionnaire (20 items) to assess the knowledge of Pediatric Nursing students regarding neonatal resuscitation. After the collection of data, master data sheet was formed to take thing forward for result and analysis.

RESULTS

Out of 95 B.Sc Nursing students 3% of students had a adequate knowledge , 46% of students

had a moderate knowledge and 51% of students had a inadequate knowledge in pretest and 92% of students had a adequate knowledge, 8% of students had a moderate knowledge and 1% of students had a inadequate knowledge in post test regarding neonatal resuscitation. Over all pretest mean score was 9.33% whereas in post test mean score was 18.12% revealing the difference of 72.55% shows the effectiveness of video assisted teaching. Paired 't' test was calculated to assess the difference between pre test (0.494, 0.813, 0.413, 0.052) and post test (0.825, 0.562, 0.747, 0.253) knowledge with their socio demographic variable regarding neonatal resuscitation among pediatric nursing students. The finding shows highly

significant difference for all the demographic variables.

The table 1 shows that the age from 20-21yrs students represents the high percentage distribution (95.8%),the females has high percentage (51.6%),most of the students seen procedure (80%),majority of students got experience from classroom (49.5%).

From the table 2 ,the majority of students have inadequate knowledge(50.3%) in pretest. In post test the majority of students have adequate knowledge(91.6%)

The finding shows that there is association between demographic variable (age, gender, procedure and experience) and pediatric

Table 1 : Under the frequency and percentage distribution we have drawn tabular column of various demographic variables like age,gender, procedure and experience.

Variables		Frequency	Percentage	Mean	Standard Deviation
Age	20-21	91	95.8%	1.04	0.202
	22-23	4	4.2%		
Gender	Male	46	48.4%	1.52	51.6
	Female	49	51.6%		
Procedure Seen Or Not	Yes	76	80.0%	1.20	0.402
	No	19	20.0%		
Experience Got From	Class room	47	49.5%	2.34	1.555
	Media	12	12.6%		
	Books	6	6.3%		
	Clinical	17	17.9%		
	None	13	13.7%		

Table 2: We have drawn a tabular column pre test and post test frequency.

Level of Knowledge	Pre Test		Post Test	
	Frequency	Percentage	Frequency	Percentage
Inadequate Knowledge	48	50.5%	1	1.1%
Moderate Knowledge	44	46.3%	7	7.4%
Adequate Knowledge	3	3.2%	87	91.6%
Mean	9.33		18.12	
Standard Deviation	3.089		2.207	
'T' Value	-21.966			

Table 3 : Association of demographic variables with level of knowledge in pre test.

Variables		Level of Knowledge			Chi Square	P Value
		Inadequate Knowledge	Moderate Knowledge	Adequate Knowledge		
No.		No.	No.			
Age in Years	20-21	47	41	3	1.412	0.494
	22-23	1	3	0		S
Gender	Male	23	21	2	0.413	0.813
	Female	25	23	1		S
Seen Procedure or Not	Yes	40	33	3	1.771	0.413
	No	8	11	0		S
Experience Got From	Class Room	31	15	1	15.412	0.052
	Media	1	10	1		
	Books	2	4	0		
	Clinical	8	8	1		
	None	6	7	0		

Table 4 : Association of demographic variables with level of knowledge in post test

Variables		Level Of Knowledge			Chi Square	P Value
		Inadequate Knowledge	Moderate Knowledge	Adequate Knowledge		
		No.	No.	No.		
Age In Years	20-21	1	7	83	0.384	0.825
	22-23	0	0	4		S
Gender	Male	1	3	42	1.153	0.562
	Female	0	4	45		S
Seen Procedure or Not	Yes	1	5	70	0.583	0.747
	No	0	2	17		S
Experience Got From	Class Room	0	4	43	10.180	0.253
	Media	1	1	10		
	Books	0	0	6		
	Clinical	0	0	17		
	None	0	2	11		

nursing students had significant association with level of knowledge. (S- Significant, NS- Non significant)

The table shows the p value and weather it is a significant or not significant

The finding shows that there was association between a demographic variable(age, gender, procedure,experience) and

pediatric students had the significant association with level of knowledge.

DISCUSSION

The findings of the present study supported by pre experimental one group pre and post test conducted by Dr. Minaxi vyas. Highly significant difference was founded between the total knowledge score of pre and post test.

It reveals the effectiveness of VAT programme and it is similar with present study.

CONCLUSION

The present study aims to assess the effectiveness of video assisted teaching on knowledge regarding neonatal resuscitation among Pediatric nursing students in chettinad college of nursing. From the findings of the data analysis it is clear that the video assisted teaching has an effect on enhancing the knowledge among Pediatric nursing students. Hence, the video assisted teaching on neonatal resuscitation and assessment can be utilized by nursing students to prevent early neonatal complications and mortality.

ETHICAL CONSIDERATION:

- Obstetrical and gynecological Nursing Departmental clearance was obtained.
- Human Ethical committee clearance was obtained.
- Prior permission from the head of the institution was obtained.

- Informed consent was obtained from the participants.
- Confidentiality was maintained.

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Effect of Honey Dressing on Wound Healing among Patients with Diabetic Foot Ulcer at Al-Ahsa, Saudi Arabia

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How to cite this article: Jalal SM, Amloqel RA, Aljaber SA, Al-Abdulwahed JAA, Aldossary RAA, Hakami MAA. Effect of Honey Dressing on Wound Healing among Patients with Diabetic Foot Ulcer at Al-Ahsa, Saudi Arabia. 2023;11(1):33-41.

ABSTRACT

Background: Diabetic foot ulcer (DFU) is a serious infection in people with diabetes mellitus. DFU is caused by vascular disease with diabetic neuropathy, and severe DFU leads to disability or even death. Mostly, povidone iodine dressing (PID) is used for DFU. The honey dressing (HD) may also improve wound healing in DFU as a complementary therapy. **Aim:** The study aimed to determine the effect of HD on the wound-healing process for DFU. **Materials and Methods:** A prospective observational study was conducted in the diabetic centres of selected hospitals in eastern Saudi Arabia. A total of 126 patients with DFU below grade three according to Wagner's classification were selected by randomization and equally divided into HD (n = 63) and control (n = 63) groups. The patients were followed up with regularity, and 60 from each group were analysed, because the remaining patients lost their follow-up. Demographic variables and clinical parameters including random blood sugar and haemoglobin A1C were measured at the initial visit before intervention. The Bates-Jensen wound assessment tool was used before and after the intervention. Intervention group received HD and control group received PID for 6 weeks. The results are presented using frequency, mean, chi-squared test, independent 't' test and Wilcoxon signed-rank test. **Results:** Among 120 patients, the demographic variables, and clinical parameters in the HD and control were homogeneous. The overall mean wound score was 41.07 ± 2.95 and 29.78 ± 2.2 before and after the intervention in the HD group respectively which was significant ($p < 0.0001$). Mean score of control was 41.13 ± 2.43 before intervention and 38.53 ± 3.29 after intervention which was also significant ($p = 0.00062$). **Conclusion:** HD is best alternative cost-effective dressing method that promotes faster healing in DFU. It should be further promoted in healthcare settings.

Key words: Diabetic foot ulcer; Wound healing; Honey dressing; Wound dressing

INTRODUCTION

Diabetic foot ulcer (DFU) is a common and serious infection in people with diabetes mellitus (DM)¹. DFU is caused by poor glycaemic control, poor circulation in lower extremities, peripheral arterial disease (PAD) with sensory neuropathy, calluses, improper

foot care and footwear, dry skin, and many others. It is associated with significant morbidity subsequently leading to disability due to lower limb amputation and even death in severe conditions if not treated on time². Diabetic peripheral neuropathy (DPN) eventually affects approximately 50% of adults

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with DM during their lifetime³. According to many longitudinal epidemiological studies, the DFU risk is approximately 25% among diabetic patients, and it accounts for two-thirds of all non-traumatic amputations⁴.

Few cross-sectional studies from developed countries such as the USA and Europe have estimated the prevalence of DPN to range from 6% to 51% depending on the population studied⁵. This burden is higher in older individuals and among adults with long-standing type 2 DM. The prevalence of diabetes among men and women is 17% and 22% respectively in Saudi Arabia⁶. Among DM patients, 2.05% have a foot ulcer, 0.19% have gangrene, and 1.06% undergo an amputation according to the Saudi National Diabetes Registry⁷. Historically, honey has been used to treat many disease conditions in clinical practices because it has medicinal effects. More recently, honey has been rediscovered by medical researchers for its use in dressing acute and chronic wounds⁸. Honey has anti-oxidant, antimicrobial and anti-inflammatory properties. It prevents the growth of bacteria on the surface of the wound due to its antibacterial effects. Honey reduces oedema and exudates due to its anti-inflammatory effects, and it enhances angiogenesis and collagen synthesis in the wound-healing process. Moreover, honey accelerates granulation tissue formation to produce wound epithelialization. Hence, honey has been used for treating wounds^{9,10}.

A systematic review has reported that honey is effective in decreasing both wound repair and treatment times as well as in increasing the protection from infection through the bacterial clearance in wounds¹¹. Although many reviews have discussed the effects of honey and some researchers have studied the impact of honey dressing (HD) on the treatment of DFUs^{12,13}, additional studies are needed more accurately to measure the changes in wound healing. Thus, we sought to objectively evaluate the effectiveness of HD in the treatment of DFUs and to provide

evidence to select an appropriate intervention for wound healing in patients with DFUs.

The aim of the present study was therefore to evaluate the effect of HD on the treatment of wounds on healing outcomes in DFUs. Furthermore, the effect of HD and its effectiveness compared to povidone iodine dressing on wound-healing outcomes in DFUs were assessed.

METHODOLOGY

Study Design

The quantitative, prospective, randomized controlled trial was conducted to determine the effect of HD on wound healing among patients with DFUs [Figure 1]. The objectives and the procedures of the present study were fully understood by the study participants through proper instructions before the onset of the study. Informed consent was obtained from each participant involved in the study before data collection and they were ensured about the confidentiality, no risk, anonymity, and voluntary participation. This study was conducted in accordance with the Declaration of Helsinki, and it followed all ethical principles.

Study Setting and Participants

The present study was conducted in the diabetic centres of selected hospitals in the eastern region of the Kingdom of Saudi Arabia. The inclusion criteria for the patients

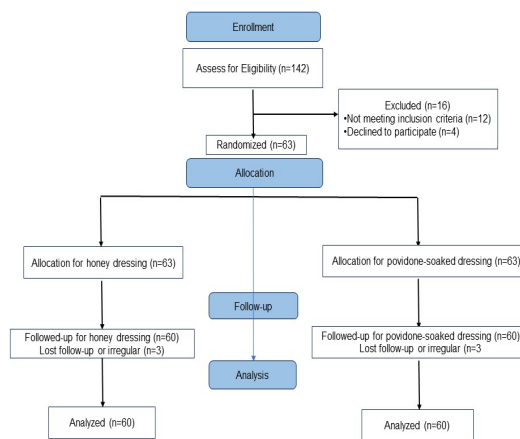


Fig. 1: CONSORT Flow Diagram.

were as follows: Persons with DM, aged 20 years and older, including both males and females, residing in the eastern region of Saudi Arabia; foot ulcers less than grade 3 according to Wagner's classification¹⁴ of any duration; DFU in either one or both legs; uncomplicated conditions; and regularly visited the diabetic clinic for wound dressings (at least two times per week).

The exclusion criteria for the patients were as follows: uncontrolled diabetes (when random blood glucose (RBS) levels are 200 ml/dL or higher or haemoglobin A1C (HbA1C) level is more than 8); septicemia; wound grade 3 or more than 3 according to Wagner's classification; amputated legs; serious illness; complicated diseases, such as end-stage renal failure, cancer and hepatic coma; undergoing immunosuppressive drug treatment; non-cooperative for the regular dressing of DFU; and known allergies to honey.

Study Sampling

The sample size was estimated considering the mean and standard deviation of a similar, previous study¹⁵ with an α error of 0.05 and β error of 0.20. Accounting for 10% dropouts, the total sample size was calculated as 142. After exclusion, 126 participants based on the inclusion criteria were selected and they were assigned to HD (63) and control group (63) equally by simple randomization using through computer-generated random numbers. A total of 126 patients with DFU were assessed to determine the effect of HD on wound healing. However, only 60 patients from the HD group and 60 patients from the control group were able to follow up and those data were analysed in the study.

Data Collection

A structured questionnaire with an observational tool was used to collect the data. This questionnaire is an original tool, and it has been evaluated by a panel of experts to validate the tool. A pilot study has also been conducted to improve the tool. The structured questionnaires consisted of the following three parts: 1) demographic variables, 2) clinical parameters

and 3) Bates-Jensen wound assessment¹⁶. The reliability of the questionnaire was tested ($r = 0.946$) using Cronbach's alpha. The time to fill in the questionnaire ranged from 15 to 20 minutes. Information was included in the tool with an introduction, explaining the objectives of the study and ensuring privacy and confidentiality before distribution. Participants were informed that their participation in the study was voluntary without any financial support. Informed consent was obtained from all the participants before the data collection.

Tool

The demographic variables included age, gender, highest educational qualification, occupation, smoking habit, body mass index (BMI), duration of DM and treatment type of DM. This information was collected for both the intervention and control groups during the initial data collection. The clinical parameters included random blood sugar (RBS) level and haemoglobin A1C (HbA1C) test result. These tests were performed before initiating intervention of the study. The Bates-Jensen wound assessment included data, such as size, depth, edges, undermining, necrotic tissue type, necrotic tissue amount, exudate type, exudate amount, skin colour surrounding the wound, peripheral tissue oedema, peripheral tissue induration, granulation tissue and epithelialization. The wound assessment was graded from 1 to 5 according to the characteristics of the wound. The total score ranged from 13 to 65, and this score was plotted on a wound status continuum to determine progress. Pre-test wound assessment was done before the start of intervention (1st week) and post-test was done after the intervention period (6th week).

Intervention

The patients with DFU were randomized into two groups as HD and control groups by using simple randomization through computer-generated random numbers. HD group received dressing with medical-grade honey; and the control group, which received povidone-soaked dressing. Participants were

advised to visit the diabetic clinic twice a week for dressing their wounds. On the first and sixth week of the study, the Bates-Jensen wound assessment was performed. All patients received appropriate antibiotics, and the ulcers were debrided by the surgeon if needed as per the standard protocols. Wound dressing was performed by a trained nurse. In the HD group, the wound was initially cleansed with normal saline, and the wound was then covered with sterile HD and bandaged. In the control group, the wound was first cleansed with normal saline, which was followed by covering it with povidone-soaked gauze. The wound dressing was continued and observed for 6 weeks regularly. However, the first and sixth weeks of the observation were taken for analysis purposes. The outcome measures were calculated in terms of the proportion of wounds completely healed (primary outcome), wound-healing time and deterioration of wounds based on the wound assessment tool. Patients were followed up for 6 weeks.

Data Analysis

Statistical analysis was performed with Statistical Package for Social Sciences (SPSS)

for Windows (version 21.0; International Business Machines (IBM) Corporation, Armonk, NY, USA). The statistical significance level was set at $p < 0.05$. Descriptive statistics, such as frequency and percentages, were used for categorical variables, and the mean and standard deviation (SD) were used for continuous variables. The demographic characteristics of the subjects were compared between the intervention group and control group using an independent t-test for the quantitative variables and the chi-squared test for categorical variables. The paired t-test was used to compare the pre-intervention and post-intervention results within the groups. The overall wound assessment score was tested for both the HD and control groups by Wilcoxon signed-rank test.

RESULTS

Demographic Variables

The demographic characteristics of the study participants were analyzed [Table 1]. The chi-squared test was performed to evaluate the homogeneity of the 60 participants in each group, and all demographic characteristics of patients (including age, gender, highest educational qualification, occupation,

Table 1: Demographic variables of the patients with DFU

<i>Variables</i>	<i>Category</i>	<i>HD group (n=60) n (%)</i>	<i>Control group (n=60) n (%)</i>	<i>p Value</i>
Age (years)	21-40 years	7 (11.7)	5 (8.3)	p = 0.673
	41-60 years	35 (58.3)	33 (55)	
	More than 60 years	18 (30)	22 (36.7)	
Gender	Male	47 (78.3)	44 (73.3)	p = 0.522
	Female	13 (21.7)	16 (26.7)	
Educational Qualification (Highest)	Primary level	8 (13.3)	12 (20)	p = 0.580
	High school level	24 (40)	19 (31.7)	
	Graduate level	13 (21.7)	9 (15)	
	Post graduate level	4 (6.7)	6 (10)	

Variables	Category	HD group (n=60) n (%)	Control group (n=60) n (%)	p Value
	Others (diploma)	11 (18.3)	14 (23.3)	
Occupation	Employed	39 (65)	36 (60)	p = 0.572
	Unemployed	21 (35)	24 (40)	
Smoke habit	Non-smokers	26 (43.3)	23 (38.3)	p = 0.577
	Smokers	34 (56.7)	37 (61.7)	
BMI	Normal (18.5-24.9)	11 (18.3)	13 (21.7)	p = 0.759
	Overweight (25-29.9)	30 (50)	26 (43.3)	
	Obese (>30)	19 (31.7)	21 (35)	
Duration of DM	< 1 year	2 (3.3)	1 (1.7)	p = 0.932
	1-3 years	5 (8.3)	6 (10)	
	4-6 years	7 (11.7)	8 (13.3)	
	6-9 years	29 (48.4)	31 (51.7)	
	10 & above years	17 (28.3)	14 (23.3)	
Treatment type of DM	Oral drugs	37 (61.7)	42 (70)	p = 0.530
	Parenteral drugs	16 (26.7)	14 (23.3)	
	None	7 (18.4)	4 (6.7)	

N: Number; %: Percentage

smoking habit, and BMI), duration of DM and treatment type of DM were homogeneous in both groups ($p > 0.05$).

Clinical parameters

In the clinical parameters, RBS and HbA1C tests were done before initiation of intervention and the results were analysed [Table 2]. The independent t-test was used to evaluate the homogeneity of the HD and control groups, and all the parameters were similar in both groups ($p > 0.05$).

Wound assessment

The wound assessment was graded from 1 to 5 according to the Bates-Jensen wound assessment tool and the mean score obtained for each characteristic. The results showed that there were significant changes in the size,

depth, edges, undermining, necrotic tissue type, necrotic tissue amount, exudate type, exudate amount, skin colour surrounding the wound, peripheral tissue oedema, peripheral tissue induration, granulation tissue and epithelialization ($p = 0.0001$) in the HD group when we compared pre and post intervention assessment [Table 3].

The patients were followed up with regularity, and only 60 from each group were analysed because others lost their continuity of follow-up. The overall wound assessment score was analysed by Wilcoxon signed-rank test. The results showed that the mean wound score in DFU patients before and after the intervention was 41.07 and 29.78 in the HD group, respectively which showed a significant difference ($p < 0.0001$). In the control group, the mean wound score before

Table 2: Clinical parameters of the patients with DFU

Clinical parameters	HD group (n=60)	Control group (n=60)	p Value
	Mean (SD)	Mean (SD)	
RBS	191.5 ± 55.5	181.81 ± 41.69	p = 0.448
HbA1C	7.72 ± 0.53	7.75 ± 0.48	p = 0.780

N: Number; %: Percentage

Table 3: Wound assessment characteristics of patients with DFU

Characteristics	HD group (n=60)		
	Pre-test Mean (SD)	Post-test Mean (SD)	Paired 't' test
Size (sq cm)	3.07 ± 0.52	1.93 ± 0.63	t = 7.215 p = 0.0001*
Depth	2.87 ± 0.63	2.03 ± 0.61	t = 7.215 p = 0.0001*
Edges	3.2 ± 0.48	2.36 ± 0.49	t = 9.898 p = 0.0001*
Undermining (cm)	3.13 ± 0.35	2.33 ± 0.48	t = 10.77 p = 0.0001*
Necrotic tissue type	3.4 ± 0.5	2.63 ± 0.49	t = 7.389 p = 0.0001*
Necrotic tissue amount (%)	3.5 ± 0.51	2.16 ± 0.65	t = 8.651 p = 0.0001*
Exudate type	3.36 ± 0.61	2.53 ± 0.51	t = 5.221 p = 0.0001*
Exudate amount	3.3 ± 0.6	2.37 ± 0.61	t = 5.635 p = 0.0001*
Skin color surrounding wound	2.77 ± 0.77	1.97 ± 0.56	t = 5.757 p = 0.0001*
Peripheral tissue edema (cm)	3 ± 0.69	2.03 ± 0.6	t = 6.922 p = 0.0001*
Peripheral tissue induration (cm)	3.17 ± 0.59	2.47 ± 0.57	t = 4.826 p = 0.0001*
Granulation tissue (%)	3.43 ± 0.57	2.7 ± 0.47	t = 5.809 p = 0.0001*
Epithelialization (%)	2.87 ± 0.57	2.23 ± 0.68	t = 4.289 p = 0.0001*

p < 0.05 – Significance; p > 0.05 – Non-significance

Table 4: Overall wound assessment of patients with DFU

Groups		Mean (SD)	Mean Difference	z score
HD group (n=60)	Pre-test	41.07 ± 2.95	10.07	z = 4.7821 p = 0.00001*
	Post-test	29.78 ± 2.2		
Control group (n=60)	Pre-test	41.13 ± 2.43	2.87	z = 3.4246 p = 0.00062*
	Post-test	38.53 ± 3.29		

p < 0.05 – Significance; p > 0.05 – Non-significance

and after the intervention was 41.13 and 38.53 (p < 0.00062), respectively [Table 4].

DISCUSSION

DFU is a serious issue and a major challenge for patients with DM, and it may result in a lengthy hospitalization and lead to lower limb amputation in severe cases¹⁷. The present study aimed to assess the effectiveness of wound dressing using honey, which may

provide a clean wound with a reduction of wound size as it was measured by the Bates-Jensen wound assessment tool and enhance the optimal environment for the promotion of healing. The depth and colour of the wound showed faster healing in HD which proved the safe wound dressing. Many researchers have studied the role of honey as a dressing material for wound healing and indicated its physicochemical and antioxidant

properties¹⁸. In this study, we used dressing with honey for HD group, and povidone-soaked dressing for control group. Honey has more active compounds such as flavonoids, phenolic acid, organic acids, enzymes, and vitamins, which enhance wound healing¹⁹. As the antibacterial activity of honey has been well documented²⁰. It reduces the ulcer of extremities and prevents the risk of limb amputation²¹. Some studies have reported that the usage of honey in dressing different types of diabetic wounds, such as DFUs, has different characteristics, but these studies did not quantitatively measure the differences. In the present study, strict inclusion criteria were adhered to standardized factors to reduce bias in the assessment of wound healing, and the wound assessment was performed using a standardized tool.

Few studies have assessed the parameters of wound healing qualitatively which might cause bias in the assessment. Also, the number of patients (n=30) involved the study was low^{22,23}. In the present study, the wound assessment was done quantitatively by using Bates-Jensen wound assessment tool. Each characteristic of the wound was compared in the HD group before and after the intervention, resulting in statistically significant ($p < 0.001$) differences which proved the faster wound healing.

A randomized controlled trial was conducted to investigate the effect of Berihoney-impregnated dressing on diabetic foot ulcer and compare it with normal saline dressing, in which the percentage of wound healing was higher in HD than normal saline dressing²⁴. In the present study, there were significant differences observed in the size of the wound at 6 weeks ($p = 0.0001$) in the HD group. The depth of the wound was significantly different in the HD group before and after treatment ($p = 0.0001$). A previous study investigated the effectiveness in the treatment of DFU than other dressing. The meta-analysis showed that HD effectively shorten wound debridement time, wound healing time, and bacterial clearance time²⁵.

In the current study, there was a significant decrease in necrotic tissue and exudate formation in the HD group ($p = 0.0001$). A case report on honey-based therapy in the successful management of diabetic foot ulcer, in which HD was changed daily and by week 16 the ulcer completely healed²⁶. A review was done to summarize the therapeutic properties of honey and its possible favourable effects on diabetic wound healing which evidenced that there was increased re-epithelialization and collagen production, higher wound contraction in HD²⁷. Similarly in the present study, granulation tissue and epithelialization were observed faster significantly ($p = 0.0001$) in HD.

The dressing procedure was generally less painful due to the ability of the honey to maintain the moisture of the wounds without adhesion to the granulating surface. In agreement, other studies have reported that DFUs generally require a longer time to heal, indicating that the cost of the dressing may be an issue. In general, the moisture-retaining dressing materials available in the market are expensive. Therefore, the overall cost for wound dressing with honey is relatively cheaper which was supported by a study^{28,29} suggesting that HD provides an economical and practical option for the management of wound ulcers in diabetic patients.

The strength of the present study was the use of a standardized tool for wound assessment. Importantly, the HD group had faster wound-healing outcomes than the control group. Bias was minimized in the selection of participants and in the outcome evaluation with randomization and single blinded assessment of the wounds. However, the present study had certain limitations. The safety of the dressing needed to be assessed, the sample size in the present study was relatively small, and all participants were not able to follow-up. However, the present study provides information for future RCTs with larger sample sizes of DFU patients, which will increase the strength and frequency of the

assessment to determine the wound-healing process more accurately.

CONCLUSION

HD is an alternative method. HD effectively promoted faster wound healing outcomes in DFU, compared to standard dressing which can reduce health consequences like limb amputations. In addition, HD effectively decreased wound oedema and odour. For the repeated dressing, the gauze removal was easier to perform and was less painful for the patient when using HD. Because HD is a cost-effective dressing method, it should be promoted in healthcare settings.

Source of funding

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Conflict of interest: There is no conflict of interest.

Ethical approval

The study protocol was approved by the Human Ethical Clearance Committee of Deanship of Scientific Research, King Faisal University and King Fahad Hospital Hofuf, Institutional Review Board (H-05-HS-065), reference number 18-E-2020 as it was a clinical study.

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A Study to Assess the Knowledge and Perineal Self-Care Practices on Episiotomy Wound Among Primiparous Women

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How to cite this article: Sarona G, Sheba James, Siva Sankari P, Joel Anil, Dhiwager, Shone P Joseph. A Study to Assess the Knowledge and Perineal Self-Care Practices on Episiotomy Wound Among Primiparous Women. 2023;11(1):42-44.

ABSTRACT

The female perineum becomes suffused and stretched during pregnancy, and further strain during vaginal childbirth contributes to approximately 85% of women experiencing some degree of trauma to the perineal region. Multiple factors play a role in the type and severity of trauma experienced, including parity, delivery method, and local practices. There is ongoing debate about best midwifery practice to reduce perineal trauma. Once perineal trauma has occurred, treatment also varies greatly, depending on its degree and severity, local practice and customs, and personal preference. In order to optimise wound-healing outcomes, it is important that wounds are assessed and managed in an appropriate and timely manner. During pregnancy and primiparous period nurses educate mothers about health behaviour that enhance positive outcomes particularly those related to self-care. The proper and effective care is thus required to prevent from the morbidity and for enjoying motherhood. A perineal wound may cause significant physical and/or psychological impact in the short or long term, however little evidence is available on this subject.

Keyword: Episiotomy, primiparous women, Knowledge, perineal self care, practice

INTRODUCTION AND BACKGROUND

**Progress is when we forgive ourselves
for taking long time to treat our bodies
like a home**

- yung pueblo

Perineal care is one of the most important maternal health-care services for reducing the maternal mortality. They indicate a time of great hope and joyful anticipation. It can also be a time of fear, suffering and even death. Although pregnancy is not a disease, and a normal physiological process, it is associated with certain risks to health and survival both for the women and for the fetus she bears. In developing countries where each pregnancy represents a journey into the unknown from

which all too many women return due to lack of care provision.¹ [Pilliteri (2008)]

The perineum is the anatomic area between the urethra, the tube that carries urine from the bladder, and the anus. In women, the perineum includes the vaginal opening. This area undergoes a lot of stress and change during pregnancy and delivery both anatomically and physiologically so it requires a proper and due attention afterwards the delivery Perineal trauma occurs during spontaneous or assisted vaginal delivery, and is usually more extensive after the first vaginal delivery. Associated risk factors also include increased fetal size, mode of delivery, and malpresentation and malposition of the fetus.

Other maternal factors that may increase the extent and degree of trauma are ethnicity (white women are probably at greater risk than black women), older age, abnormal collagen synthesis, and poor nutritional state.²(Blessly, 2021)

Perineal injury is the most common maternal morbidity associated with vaginal birth. In Queensland in 2016, 73.5% of women who had a vaginal birth experienced perineal trauma and of these, 57.2% required surgical repair.³(Premkumar G, 2005) Episiotomy the surgical incision made to widen the perineum in order to facilitate vaginal delivery and prevent laceration it has been a part of obstetrics practice.⁴ Primigravidity and operative vaginal deliveries have been associated with higher incidence of episiotomy and while routine use with its attendant complication have continued, restrictive use recommended by WHO has been difficult to achieve in many developing countries.⁴ [Timothy A Oluwasola]. Most women have some degree of discomfort during the first few postpartum days. One of the common causes of discomfort is episiotomy.⁴ Nursing interventions are intended to reduce the discomfort and allow the woman to take care of herself and her baby. Simple interventions that can decrease the discomfort associated with perineal trauma is applying an ice pack, moist or dry or topical applications, cleansing the perineum with a squeeze bottle and taking a warm shower or a sitz bath.⁵[Hoda abed El-Azim Mohamed]

MATERIALS AND METHOD

The chapter explains the methodology adopted by the researcher by the researcher to assess the knowledge and perineal self care practice on episiotomy wound among primiparous women in chettinad hospital and research institute, kelambakkam, Tamil nadu. It deals with the research approach, research design, setting of the study, population, sample and sample size, sampling technique, criteria for the selection of sample, data collection procedure, description of tool for data collection, plan for data analysis, and ethical clearance.

RESEARCH APPROACH

The researcher adopted a quantitative approach

RESEARCH DESIGN

A Descriptive study

RESEARCH SETTING

Chettinad Hospital and Research Institute, Kelambakkam

POPULATION

Primiparous women with episiotomy wound

SAMPLE

30 Primiparous women

SAMPLE SIZE

SAMPLE SIZE :FORMULA,

$$n = \frac{z^2 p_1(1-p_1) + p_2(1-p_2)}{d^2}$$

d²

Where,

n = 30 Primiparous women

d/2 = confidence interval

p₁ = Estimated proportion

d = desired precision

1112

SAMPLE TECHNIQUE

Convenience Sampling technique was used in this study

FINDINGS

Objective 1: To assess the perineal self-care practices on episiotomy wound among primiparous women

From the findings it shows that 3.2% of primiparous women have adequate perineal self-care practices, 80.6% of primiparous women have moderate perineal self-care practices, 16.2% of primiparous women have inadequate perineal self-care practices, so the findings shows that majority of primiparous women have moderate perineal self-care practice

Objective 2: To assess the knowledge of perineal self-care on episiotomy wound among primiparous women

From the findings it shows that 3.2% of primiparous women have adequate knowledge on perineal self-care, 80.6% of primiparous women have moderate knowledge on perineal self-care, 16.2% of primiparous women have inadequate knowledge on perineal self-care, so the findings shows that majority of primiparous women have moderate knowledge on perineal self-care.

Objective 3: To identify the correlation between the knowledge and perineal self-care practices on episiotomy wound among primiparous women

From the findings it shows that there is a positive correlation between the knowledge and perineal self-care practices on episiotomy wound among primiparous women, the perceived value of correlation is 0.095, so there is a positive correlation between objectives & hypothesis

Objective 4: To identify the association between knowledge and perineal self-care practice with selected socio-demographic variables

From the findings it shows that there is a significant association between knowledge and perineal self-care practice with selected socio-demographic among primiparous women

DISCUSSION

The study intends to assess the knowledge and perineal self-care practices on episiotomy wound among primiparous women, in order to achieve the objectives of the study, Descriptive research design was adopted. Purposive sampling technique was used to select the samples. Data was collected from 30 Primiparous women by using the self-structured practice & knowledge questionnaire. Data gathered was analyzed by using descriptive and inferential statistic.

CONCLUSION

The study findings shows that 3.2% of primiparous women have adequate knowledge and perineal self-care practice on episiotomy wound, positive correlation was found between knowledge and practice which is statistically significant at $p > .05$ level of significance.

Conflict of Interest: NIL

Source of Funding: SELF

Ethical Clearance: The research was conducted according to established ethical guidelines (paules 2007) The UG Committee clearance and institutional ethical committee clearance was obtained from CARE Institutional. The study was explained to the participants. The participants were reminded that they may withdraw their participation whenever they wishes and the study results will be solely for research purpose

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A Study to Assess the Knowledge on Self Medication Antibiotics Among Adults in Selected Community Area

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How to cite this article: Shenbagaprabha N, Bhuvaneshwari S, Krithiga P, Padmavathi D, Kumar.RP, Yamini KS. A Study to Assess the Knowledge on Self Medication Antibiotics Among Adults in Selected Community Area. 2023;11(1):45-49.

ABSTRACT

Background and Aims: About 67.3% of participants had self-medicated with antibiotics in the past six months in the community residents in Addis Ababa. The majority of participants (82.3%) purchased antibiotics without a Prescription from pharmacy/ drug store .To assess the knowledge on self medication-antibiotics among adult in Community area.

Material and Method: This present study was a descriptive, cross-sectional survey which was performed for a period of two months in Chengalpattu district, Tamil Nadu. The questionnaire consisted of fifteen questions split across four sections. Adult Community people were included in the study. 62 participants enrolled in the study after informed consent was obtained. A scoring system was developed to analyse the responses.

Result: The data collection for the main study was done. The collected data was tabulated and analyzed. Descriptive and inferential statistics were used. The mean value is 8.82 and the standard deviation is 3.39. The study show that 19% of the community people are in good knowledge, 57% of the community people are in average knowledge and 24% of the community people are in poor knowledge.

Conclusion: This study helped us to realize and improve the knowledge gap which is persistent amongst community people in chengalpattu district, Tamil Nadu.

Keywords: Antibiotics, Community people, Usage of drug.

INTRODUCTION

Self-medication with antibiotics (SMA), which is defined as using antibiotics to treat symptoms or diseases without a doctor's prescription or advice, is a major contributor to antibiotic misuse and may hasten the emergence of antibiotic resistance. According to a review study, SMA

has a strong correlation to the rise of human pathogen resistance. Additionally, improper use of antibiotics through self-medication can result in serious negative consequences like antibiotic resistance, drug-drug interactions, and drug toxicity, which can result in death. SMA is widespread due to lax implementation

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of the prescription-only restrictions in both developing and wealthy nations. According to studies, SMA affects a large portion of the population in several nations. Country ranges, for instance, in Southeast Asia. In the Middle East, the ranges are from 19% to 82%, or 7.3% to 85.59%. Previous studies found that 38.8% of the populace in low and middle income countries (LMICs) used antimicrobials for self-medication. Furthermore, a comprehensive analysis conducted in Ethiopia found that the incidence of self-medication ranged from 17% to 77.1%, and that using drugs inappropriately was linked to an increase in the prevalence of self-medication with antibiotics. As a result, these practices will cause major health issues, such as the development of antibiotic resistance. Antibiotics were frequently sold over the counter in neighbourhood pharmacies. The influence of the pharmacy owner in maximising profit and lax regulatory systems were the main causes of the non-prescription selling of antibiotics in various research involving pharmacy workers in Qatar and Saudi Arabia. In Ethiopia, it has also been noted that professional dispute and customer pressure play negative roles in the misuse of drugs. Therefore, to stop the selling of antibiotics without a prescription, strict regulatory enforcement and public education are both necessary.

RESULTS AND DISCUSSIONS

Table 1: Distribution of demographic variables among community people:

SI. NO	Demographic Variables	Classification	Frequency	Percentage
1.	Gender	a). Female	42	67.7%
		b). Male	20	32.3%
2.	Age	a). < 20	6	9.7%
		b). 20 – 39	38	61.3%
		c). 40 – 59	18	29.0%
3.	Marital Status	a). Married	34	54.8%
		b). Single	28	45.2%
4.	Level of Education	a). Diploma graduate	11	17.7%
		b). Elementary school	10	16.1%
		c). Junior high school	8	12.9%
		d). Postgraduate	17	27.4%
		e). Senior high school	16	25.8%

STATEMENT OF THE PROBLEM

To assess the knowledge on self medication-antibiotics among adult in Community area.

OBJECTIVES OF THE STUDY:

1. To assess the knowledge on self medication antibiotics among adult in community areas.
2. To associate the knowledge on self medication antibiotics among adult in community areas with the selected demographic variables.

MATERIAL AND METHOD

The study adopted on qualitative research approach. The study was conducted in Manamai, Chengalpattu district, Tamil Nadu. The inclusion criteria were people who are willing to participate in the study, People who are at the time of data collection, those who are able to understand tamil. The tool had two parts : Part 1 Questionnaire on demographic variables. Part 2 Questionnaire to identify the level of knowledge among adults in community area.

The data collection was done in 2 weeks through survey. The study was initiated after obtaining prior permission from Chettinad College of Nursing Principal, Class coordinator for respective years and got approval from IHEC .

Sl. NO	Demographic Variables	Classification	Frequency	Percentage
5.	Area Residents	a).Rural	62	100%
		b).Urban	0	0%
6.	Monthly Income	a).8000	19	30.6%
		b).10000	24	38.7%
		c).15000	9	14.5%
		d).20000	10	16.1%
7.	Do you know what are antibiotics	a). Yes	46	74.2%
		b). No	16	25.8%
8.	What are antibiotics used for ?	a). Virus Infection	28	45%
		b). Bacterial Infection	30	48%
		c). Others (specify)	4	7%

Table 2: Distribution of level of knowledge among community people regarding self medications antibiotics

Si.no	Level Of Knowledge	Frequency	Percentage	Mean	Standard Deviation
1.	Good Knowledge	12	19%	8.82	3.39
2.	Average Knowledge	35	57%		
3.	Poor Knowledge	15	24%		

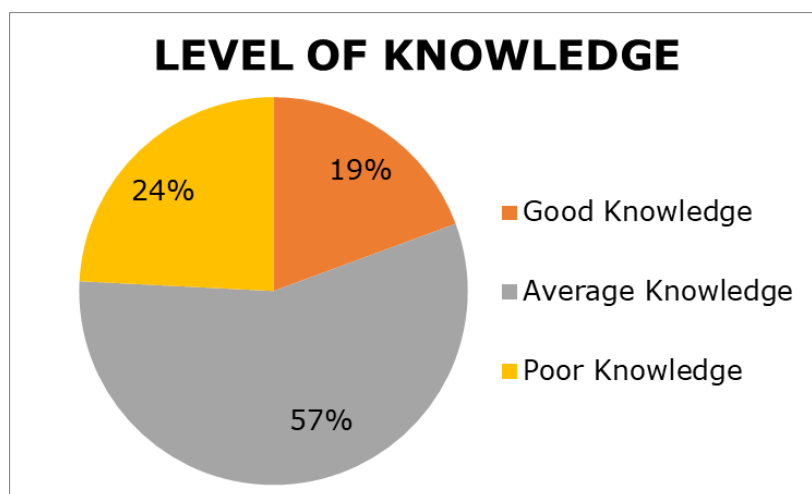


Table 3: Distribution of association between the level of knowledge and demographic variables of community people

Sl. No	Demo-graphic	Classification	Level of Knowledge			Df	X2	P value
			Good Knowl- edge	Average Knowl- edge	Poor Knowl- edge			
1.	Gender	Female	9	24	9	2	0.71104	5.99 NS
		Male	3	11	6			

Sl. No	Demo-graphic	Classification	Level of Knowledge			Df	X2	P value
			Good Knowl-edge	Average Knowl-edge	Poor Knowl-edge			
2.	Age	<20	0	4	2	4	3.019715957	9.49 NS
		20 - 39	9	19	10			
		40 - 59	3	12	3			
3.	Marital status	Married	7	17	8	2	0.079155983	5.99 NS
		Single	5	16	7			
4.	Level of Education	Diploma graduate	3	6	2	8	15.18055343	15.51 NS
		Elementary school	5	3	1			
		Junior high School	0	7	1			
		Post graduate	3	10	4			
		Senior high school	1	9	7			
5.	Area Residents	Rural	12	35	15	2	0	5.99 NS
		Urban	0	0	0			
6.	Monthly Income	8000	4	12	3	6	1.633370231	12.59 NS
		10000	5	13	6			
		15000	1	5	3			
		20000	2	5	3			
7.	Do you know what are antibiotics	No	3	1	8	2	6.034400172	5.99 S
		Yes	9	23	14			
8.	What are antibiotics used for	Bacterial Infection	6	17	10	4	1.443180574	9.49 NS
		Virus Infection	6	18	5			
		Others	0	0	0			

It shows the mean (8.82) percentage, standard deviations (3.39) for the aspects level of knowledge among community people. Overall percentage for level of knowledge among community people found to be 19%

of the participants were in good knowledge, 57% of the participants were in average knowledge and 24% of the participants were in poor Knowledge.

It shows the gender, age, marital status, level of education, area residents, monthly income, do you know what are antibiotics and what are antibiotics used for are belongs to significant or non-significant of following demographic variables.

* Level of Significance is 5% (.05);

** DF= Degree of Freedom; NS= Not Significance; S= Significance

CONCLUSION

The study finding revealed that a study to assess the knowledge on self medication antibiotics among adults in selected community area, Chengalpet district, Tamil Nadu, India. We have conducted a study topic on study to assess the knowledge on self medication antibiotics among adults in selected community area and 60 sample were collected.

Conflict of interest : nil

Sources of funding : self

Ethical clearance : Chettinad Academy of Research and Education , Institutional Human Ethics Committee on 30.03.2022.

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A Study to Assess the Level of Knowledge Regarding “Immunization among Mothers of Infant” in Selected Village at Kanchipuram District, Tamil Nadu, India

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How to cite this article: Shenbagaprabha N, S.Vanaja, S. Santhosh. A Study to Assess the Level of Knowledge Regarding “Immunization among Mothers of Infant” in Selected Village at Kanchipuram District, Tamil Nadu, India. 2023;11(1):50-52.

ABSTRACT

A study to assess the level of knowledge regarding immunization among mothers of infant in selected village. The objectives are To assess the existing level of knowledge of the mother of infant regarding immunization, to find out the association between the level of knowledge regarding immunization among mothers of infant at selected demographic variables. The sampling technique is Non probability convenient sampling technique with the sample of 30 mother of infant and questionnaires were formulated, structured questionnaires were used to assess the knowledge. The variables were assessing the level of knowledge of adult women **immunization among mothers of infant**. Hypotheses were formulated. The level of significance selected was $p < 0.05$. An extensive review of literature and guidance by experts formed the foundation to the development of structured questionnaires. The investigator used demographic variable proforma, structured questionnaires to collect data. The data collection tools were validated and reliability was established. The data collection for the main study was done. The collected data was tabulated and analyzed. Descriptive and inferential statistics were used. The mean value is 11.8 and the standard deviation is 8.89. The study show that 6.60% of the women having adequate knowledge, 63.40% of the women are having moderate knowledge and 30% of the women are having inadequate knowledge. So this study shows that the people who were living in north Mahabalipuram needs adequate knowledge regarding immunization among infant.

Key words :Assess, knowledge, infant, immunization

INTRODUCTION

Immunization is a way of protecting the human body against infection disease through the human body against infection disease through vaccination. Immunization prepares our bodies to fight against disease in case we come into contact with them in future¹

Babies are born with some natural immunity which they get from their mother & through breast feeding. Having a child immunized gives extra protection against illness². India has a long history of immunization, where our ancestor used to inject or apply milk or oil extracted from

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vegetables & animal source to the body after making scratches on the body⁵.

OBJECTIVES OF THE STUDY

- To assess the existing level of knowledge of the mother of infant regarding immunization.
- To find out the association between the level of knowledge regarding immunization among mothers of infant at selected demographic variables.

MATERIAL AND METHODS

- ✘ **Research Approach:** Quantitative Research approach.
- ✘ **Research Design:** Non- Experimental Descriptive Design.
- ✘ **Setting of the Study:** kuzhipanthandalam village, kanchipuram district.
- ✘ **Population:** Mothers of Infant
- ✘ **Sample:** Mothers of Infant who are fulfilling the sampling criteria
- ✘ **Sampling Technique:** Non probability Convenient Sampling Technique.
- ✘ **Sample Size:** The sample size was 30 mothers of infant who have fulfilled the sampling criteria

CRITERIA FOR SELECTION OF SAMPLE

Inclusion criteria

- Who are willing to participate in the Studies.
- Who are communicate either on English/ Tamil.
- Who are the mothers with infant below 1 years.
- Who are resided at selected area.

Exclusion Criteria

Mother not present at the time of study.

DEVELOPMENT AND DESCRIPTION OF THE TOOL

A structured interview schedule was developed based on the objectives of the

study; through review of literature on related studies, journals, and books; opinion from the experts. The instrument used in this study consists of two sections which are as follows:

- SECTION A: demographic data
- SECTION B: It consisted of multiple choice questions which were prepared to assess the knowledge on immunization among mother of infants

METHOD OF SCORING AND INTERPRETATION

Each correct answer carries "1" mark and wrong answer carries '0' mark. The maximum score is '30' and the minimum score is '0'. According to the scores obtained by the samples, it was categorized as follows by the investigators.

- >76% - Adequate knowledge
- 51-75% - Moderately adequate knowledge
- < 50% - Inadequate knowledge.

METHOD OF DATA COLLECTION:

The data was collected using structured interview schedule.

RESULTS AND DISCUSSION:

The collected data were entered in data sheet and analyzed using descriptive and inferential statistics. The distributions of the demographic data of the study participants are 50% were Age of the mother 20-25 years, 77% were having Up to 12th std of mother education & 63% belongs to joint family .

Table 1 shows the knowledge level regarding immunization among mothers of infant

Regarding the association between the knowledge level and the variables there is a significant relationship between age, type of family, education and their knowledge score at $p < 0.05$.

Source of fund: Self

Conflict : Nil

Table-1: Frequency and percentage distribution of demographic variables of mother of infant.

S.no	Character	Category	Knowledge	
			Frequency	Percentage
1.	Age of the mother	a) 18 -20 years	1	3%
		b) 20 -25years	15	50%
		c) 25 -30 years	13	44%
		d) Above 30 years	1	3%
2	Type of family	a) Nuclear family	10	34%
		b) Joint family	19	63%
		c) Extended family	1	3%
3.	Educational status of the mother	a) Up to 10th	6	20%
		b) Up to 12th	23	77%
		c) Degree	1	3%

Ethical Clearance: This obtained from Institutional Human Ethics Committee

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Progressive Influences of Family in Intensive Care Nursing Interventions: A Review

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How to cite this article: Kaur SP, Raman Kalia R. Progressive Influences of Family in Intensive Care Nursing Interventions: A Review. 2023;11(1):53-58.

ABSTRACT

Introduction: This paper reviews the aspects of Family-Centered-Care (FCC) for patients in critical care nursing. FCC is an innovative and holistic approach consisting of planning, delivering, and evaluating the health care. It is mutually beneficial to the health and care of patients, their families, and especially the health care providers. Family members of the critically ill have a substantial role in the treatment trajectory of the patient, along with the nurses. FCC in critical care has opened a new dimension in improving the quality of care for the critically ill.

Methods: A systematic search of five electronic bibliographic databases (CINAHL, Medline, EMBASE, Google Scholar, and Cochrane Database of Systematic Reviews) was undertaken. The keywords used were "Nursing," "Intensive care," "critical care," and "Family Centred Care."

Findings: The review identifies the meaning of family involvement in the care of the critically ill patients and its positive outcomes on the health of the patient. FCC is developed under six categories: effects on patients, education and attitudes of nurses, effect on family and other factors (environmental, psychological and communication). Presence of a family member in the hospital ensures patients' safety and provide sense of security and confidence to patients under care. The research highlighted the needs of the family who have critically ill patients admitted in intensive care units. It was observed that there is a lack of appropriate literature and qualitative methods to assess the needs and interventions for the care of the family, as the time of health care providers is distributed in giving the required nursing care interventions to the patient and following the hospital care protocols.

Conclusion: The present literature review identified the importance of integrating FCC in the critical care units. This provides opportunities for improvement of care by involving and accommodating family members in the health team.

Keywords: Nursing, Intensive Care, Family Centred Care.

INTRODUCTION

Patient-focused care has always been a core aspect in nursing. A need has been recognized for imbining the participation of patients and their family in nursing. The family members of the patients are not actively involved in the patient's care especially in the critical care units. FCC is a model that motivates the

inclusion of family members in the planning and provision of care as well as in assisting the nurses. It should be noted that the family is usually defined as the parent(s), children, and significant others. Therefore they should be made a significant participant in the care plan of the patient through information and training. Studies discovered that FCC has

a tremendous influence on the patient and it helps in the immediate and long-term recovery of the patient.^{1,2}

The first major research conducted in this area was done by Molter (1979), who proposed that it is of great importance to include family in critical care. He also designed an exploratory, descriptive research design that involved a structured interview process, which took nursing care to an entirely different level with respect to family members of the critically ill. The "Critical Care Family Needs Inventory (CCFNI)" was developed in 1983 (by Molter and Leske) by randomly organising Molter's (1979) original list of needs. In this, the family needs were grouped into Leske's five dimensions, i.e., assurance, proximity, information, support, and comfort. The introduction of nursing systems, cybernetics and family therapy theories were also mentioned in the previous literature. A collaborative interdisciplinary approach is needed for the effective implementation of FCC. The quality of information provided to the members of the family about the patient influenced their level of satisfaction.^{3,4,5}

Traditionally, in critical care units, the nurses are found to be working in a triad relationship with the patient on the top end, doctors at one, and the patient's family at the other end, maintaining communication at all ends for effective delivery of the care and to expedite the patients' recovery. The involvement of family in pediatric intensive care and palliative care has been widely used as compared to adult patients requiring critical care. In the past various methodologies have been used to evaluate the results of FCC. A few of them provided valuable results indicating that involving patients' families in the critical care interventions along with the nurses benefits the patients' recovery and rehabilitation, coping strategies of family members with a reduction in anxiety levels. Calm and well-informed family members proved to be an important link to patient information and a valuable resource in the delivery of health care in intensive care

units. Family members are not considered as caring units in the nursing care interventions, and little knowledge is available on how to prepare a nursing care plan for the patients in intensive care units, in which the family is also a participant. To meet the expectations and needs of the family members in an ICU patient and their transfer to the general ward required modified FCC. It suggested an appropriate family needs assessment tool to measure and track these differences.⁶

METHODS

The online databases were scoured for the relevant literature. The five electronic databases searched were CINAHL, Medline, EMBASE, Google Scholar, and Cochrane Database of Systematic Reviews. The keywords used to refine the search were "Nursing," "Intensive Care," "critical care," and "Family Centred Care ." A total of 53 articles (abstract and full text) were found on these databases. However, after scrutiny, the researcher was able to extract only 23 full text and relevant articles for writing this review.

FINDINGS

In recent times the effectiveness of nursing care has shown positive trends when specific identified human needs were considered earlier those needs depended only on patients' medical diagnosis. The research has shed light on the needs related to biological rhythm, identity, self-esteem, control and interdependence, information and communication, territoriality, spiritual health (BISCITS), hope, meaning, and purpose.⁷

In a case, study FCC was divided into three concepts: Respect, Collaboration, and support. In this research consisting of 75 control & 99 family interventions were studied. The FCC helped improve the patients' family perceptions of respect, support, and collaboration, Patients' safety and security, and family integrity and closeness. In a study, nurses rated hindrances and help in end-of-life care, most of them were related to family members; for e.g., acceptance of patient's

death, asking for more technical treatment, and showing anger.^{8 9 10}

FCC was developed on the basis of 6 categories: effects on patients, nurses' qualification and attitudes, factors affecting the environment, psychological assessment, communication, and family effects.¹¹

The ineffectiveness of comprehending the diagnosis, prognosis, or treatment by the family members increased their anxiety. However, caregiving aspects such as feeding, bathing, etc., increased the satisfaction of the family members as well as the nurses. In some cases, both nurses and family members believed that the participants might add to the suffering of the family in the acute phase of the illness, which might negatively affect the quality of care as their lack of knowledge can put the patient in the difficult situation such as accidental extubation while caring, catheter removal and failure to comply with measures to prevent hospital acquired infection while performing basic care. It was suggested that the family members might be more helpful in the rehabilitation phase.¹²

In critical care units where death and discussion about end-of-life care are very common, it becomes very difficult for the critical care team, including physicians and nurses, to communicate with family members. Therefore a "family conference" was suggested between the critical care team and the family members as a part of FCC for quality improvement of patient care. There might be one or several family conferences and communication workshops between the nurses and the family that can improve the FCC philosophy. these conferences achieve a common understanding of the disease and the treatment issues and ensure that the family knows how to reach the health care team for questions or queries.¹³

A descriptive survey design was developed which highlighted issues of individual choice to get involved in health care. This study described the positive and negative attitudes of the health care providers and family members. The ethical criteria of

the study stated not to include the participant on compassionate grounds, he/she has to be a family member of the patient. The relatives were involved after 48 hours of the patient's admission to the ICU. The relative sample consisted of majorly wife/husband (45%), The next daughter/son (30%), (20%) mother, and the rest (5%) were blood relatives.¹⁴

The development of the questionnaire consisted of various aspects of care such as family care, patient and professional care, and the ICU environment. Its results revealed that the families were less satisfied with the information provided but were satisfied with the timing and the amount of information.¹⁵

A face-to-face and telephone survey has been mentioned specifically in the case of dialysis patients and their designated surrogates. The dialysis is required in chronic critical conditions, which is long-term and benefits the patient through FCC. This paper presented differences in preferences for the care planning as the surrogates often lack the information needed to make such decisions and why they lacked information. This study was based on end-of-life (EOL) decisions.¹⁶

Shared decision-making is an important aspect of FCC, and its implication is immense in terms of the decision support tool. Many times when the patients are not in the condition to make decisions regarding health care during their critical illness, they often depend upon their family members, especially those family members with higher education. It was reported that patients in terminal stages of life were more passive with respect to treatment decision preference than those in initial stages. Therefore, family members play an important role in the decision-making process in such cases. The health care team facilitates the decision-making for the treatment of an individual by including family members through FCC.¹⁷

Many pieces of research revealed that nurses apparently believe family visits can negatively affect the patient physiologically and is of limited benefit to the patients' psychology. However, the studies showed

that families are not just mere visitors in the critical care unit. This paper suggested that visiting rules should not be applied to family members and even pets, and hospitals should plan spaces to accommodate the family members.¹⁸

According to a study, The family members provide some form of guarantee to ensuring protection of patients' rights and observe treatment; it was also possible for them to notice mistakes and prevent them. Patients felt less abandoned and had an indirect connection with the rest of the world outside hospital through their relatives. This way, they felt that they were still a part of the social community. The family presence gave the patients a sense of security and protection during ICU stay which renders them feeling powerless, insecure, and exposed. It also gave the feeling of belongingness.⁹

The research has identified the positive and negative attitudes of ICU nurses and the relatives of critically ill patients towards their relative involvement in patient care, and the benefits perceived by participation in care is mentioned and shift towards family-centered care have been examined by the previous research.¹⁹

A scoping review identified the components of involving family in the patient care in intensive care units being family's presence, their own needs, communication and information, decision making and contribution to care.²⁰

Despite FCC's positives, there are many barriers to promoting the same in the hospital environment, especially in critical care units. These barriers are identified as constraints on space, time, and ability to meet the physical needs of the patient. Additional barriers include lack of knowledge and lack of organizational support for FCC.²¹

This study elaborates on the guiding and supervising role of the nurse in supporting families in ICUs, and the contribution of family members toward patients' care and recovery, while in ICU. The families' contribution can

be at different stages of recovery, like getting to know about the patient through family, family participation in care, and the nurses' role in supporting families of patients admitted in ICU.²²

DISCUSSION

Earlier, the nurses assessed patients' needs based on physiological functions, and their emphasis was on the identification of physical needs; however, nonphysical needs were considered as just important. In the family care model, the elements of were: family is constant, professional collaboration, family strength, complete information, emotional and financial support, and the design of the health care delivery system.²³⁻²⁶

The previous studies suggested for the nurse to assess the needs of the family along with the patient requiring critical care. It was suggested that the family could attend rounds to provide information about the patient's response to treatment, information related to prognosis, and patient care planning issues.^{27,28}

The three most common care activities provided by the family members were massage, passive limb exercises, full wash and eye care.

The nurse's role in FCC had various barriers. The nurses thought that on collaborating with the family members, their nursing tasks would take longer time, increase their workload (as the relative would need teaching), and will make awkward enquiries related to the condition of the patient. The relatives felt their anxiety elevated and required constant reassurance about what was happening and why, this was a major barrier experienced towards associating the family members in the care of the patient.^{27,29}

The various barriers to nursing family communication were categorized into four parts such as system barriers, nurse and physician barriers, patient and family barriers. System barriers included heavy patient load or not enough nursing staff in the unit, or family members unable to attend the patient's care.

The nurse barriers include lack of support from nurse colleagues and outside the scope of nursing practice. The physician barriers included conflict within the health care team, lack of communication between physicians and nursing staff, and physicians discouraging nurse communication with family on certain topics. The patient /family barriers include: family does not visit or call, family is angry, the family has unrealistic expectations of medical treatment, or language difficulties.^{30,31}

It could be considered obvious that physical care requires a special, intimate relationship. Agitated patients and family members occupy a lot of nursing time.³²

To optimize patient care in ICU by involving family, the nurse needs to be more focused and hence construct well-designed nursing care plans which allow the family members to be around and participate in the care along with the nurse. Extensive qualitative studies need to be conducted to develop such integrated care plans involving the family of the patient in nursing care.

CONCLUSIONS

Although existing research supports the participation of family members in the physical care of critically ill patients, a low level of evidence was found of its actual implications in the critical care nursing and its benefits to both the nurses and the relatives of the patient. Further research that explores the more active role of family in the chronic illness care (i.e. at the rehabilitation phase) than in the acute care. In addition, information on medical history of the family members is an important aspect to be taken into account before introducing the family member into FCC as an already sick person cannot take care of the critically ill. FCC also promotes closeness and family integrity. Patients' needs in terms of BISCITS must be included in critical care and the nurses must be prepared and educated. In terminal cases at least two family members are suggested to be present for supporting the patient as well as one another to maintain the continuum of

care. An evaluation tool should be made to reinforce and evaluate the interventions of FCC by nurses.

Conflict of interest: None

Source of Funding: Self

Ethical Clearance : Ethical Clearance obtained from research ethical committee of Saraswati Nursing Institute.

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Printed: Printpack Electrostat G-2, Eros Apartment, 56, Nehru Place, New Delhi-110019

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