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Assessment on Level of Knowledge Regarding Iron Deficiency Anemia During Pregnancy among Antenatal Mothers at Srm General Hospital

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ABSTRACT

Anemia during pregnancy is a global public health challenge facing the world today, especially in the developing countries. Objective: The aim of this study was assess the knowledge on Iron Deficiency Anemia during Pregnancy among Antenatal Mothers at SRM General Hospital and to associate the Knowledge on Iron Deficiency Anemia during Pregnancy among Antenatal Mothers At SRM General Hospital with their demographic variables. Methods: Quantitative approach and non-experimental descriptive research design was used. The data collection included two parts. Part A: Demographic variables, Part B: A Structured questionnaire to assess knowledge on Iron Deficiency Anemia during Pregnancy among Antenatal Mothers. 52 Antenatal mothers who fulfilled the inclusion criteria were selected as samples using non probability convenient sampling technique. The study was conducted at SRM General Hospital, Kancheepuram dt.. Results: The data were analyzed and interpreted based on the objectives using descriptive and inferential statistics.Among 52 mothers 82.7% of them had Moderately adequate Knowledge,17.3%of them had Inadequate knowledge and None of them had adequate knowledge. The p-values regarding the demographic variables "Place of Living and Occupation" are significant at 5% level of significance. .Conclusion Anemia in pregnancy is an important contributor to maternal mortality/morbidity as well as to the low birth weight which in turn might contribute to increased percentage for infant mortality.

Keywords: *Anemia, Iron Deficiency Anemia, Pregnancy, Antenatal Mothe*

INTRODUCTION

Anaemia is a global public health problem affecting over 1.62 billion people . It affects all age groups of people but pregnant women and children are more vulnerable. The World Health Organisation defines anaemia in pregnant women as Hb concentration less than 11.0 g/dl . In pregnant women, anaemia increases risk for maternal and child mortality and has negative consequences on the cognitive and physical development of children , and on work productivity . Severe anaemia is associated with fatigue, weakness, breathlessness, dizziness, drowsiness and perceived paleness of the skin . In the developing world, anaemia is a priority nutritional problem because of the economic, social, and other negative consequences associated with it.[1]

Iron deficiency is the most common micronutrient deficiency in the world. Globally, anemia affects more than 1.6 billion people, or approximately 25% of the population. In developing countries, approximately 50% of anemia in the population is thought to be due to iron-deficiency, but the proportion may vary among population groups and in different areas according to local conditions.

Therefore, the WHO estimates that one out of every two preschool children and pregnant women in developing countries are iron deficient. The highest prevalence of anemia is in preschool-age children (47%); however, the population group with the greatest number of anemic individuals is non-pregnant women (468 million). Likewise, the highest proportion of individuals affected is in Africa (48 to 68%), while the greatest number affected is in South-East Asia (315 million). In both instances, the problem is evidently linked to poverty.[2]

Anaemia prevalence was highest (24.3 %) during the third trimester as compared to the first trimester (14.6 %) and second trimester (20.7 %). Haemodilution in pregnancy increases to peak during the second trimester which may explain the high prevalence of anaemia during this period. However, the increased incidence of anaemia during the third trimester may also indicate poor antenatal care and nutrition.[3]

THE MAGNITUDE OF THE PROBLEM

30%–50% of anemia in children and other groups is caused by iron deficiency (World Health Organization 2007). Because 1.6 billion people are anemic (McLean et al. 2009), several hundred million manifest iron deficiency anemia. As such, iron deficiency is the most common cause of anemia worldwide. Iron deficiency anemia afflicts a subset of the two billion people worldwide who are nutritionally iron deficient (Viteri 1998) [4]

Nutritional Anemia – major public health problem worldwide particularly in developing countries among women of reproductive age. As per National Family Health survey, more than half of women in India (55%) have anemia, including 39% with mild anemia, 15% with moderate anemia and 2% with severe anemia. Nearly 50 – 80% of Indian mothers suffer from anemia due to iron – deficiency in their diet.[5]

Maternal anemia invariable translates into anemic infants and newborns. About 30- 40 percent of newborn suffer from low birth weight due to maternal anemia and malnutrition. An alarming 600 million people in South-East Asia are suffering from iron deficiency anemia, predominantly affecting adolescent girls, women of reproductive age and young children. Although the prevalence of anemia is estimated at 9% in countries with high development, in countries with low development the prevalence is 43%. [6]

Children and women of reproductive age are most at risk, with global anemia prevalence estimates of 47% in children younger than 5 years, 42% in pregnant women, and 30% in nonpregnant women aged 15–49 years and with Africa and Asia accounting for more than 85% of the absolute anemia burden in high risk groups.[7]

The continuing prevalence of nutritional anemia in India is thus a neglected tragedy and continues to exact a heavy toll of suffering and death. The challenge lies in using this knowledge accurately and effectively implementing a solution. Unfortunately, those who require supplementation cannot afford it, and those who can afford it generally do not require it. So, what is actually required is nutritional education and an active role for nurses in antenatal Outpatient Departments. Nurses should educate pregnant mothers about careful selection of food and meal planning and preparation during their routine antenatal checkups.

METHOD AND MATERIALS

Quantitative approach and non-experimental descriptive research design was used. A total of 52 Antenatal mothers who fulfilled the inclusion criteria were chosen as samples by using non-probability convenient sampling technique. The study was conducted at SRM general Hospital Kancheepuram dt. The data collection included two parts. Part A: Demographic variables, Part B: Structured questionnaire to assess knowledge on Iron Deficiency Anemia during Pregnancy among Antenatal Mothers. The Study variable was knowledge on Iron Deficiency Anemia during Pregnancy and the Demographic variable were Age , Type of family ,Number of Children in the Family, Dietary Pattern, monthly income ,education , religion , occupation, Type of work and Place of Living

Formal approval was obtained from the Institutional Review Board and Institutional Ethical Committee of SRM IST, Head of the Department of Obstetrics and Gynaecology,SRM General hospital, Kattankulathur, In addition, the participants were informed of their right to withdraw anytime during the study.

The tool consists of 2 sections. Part -A deals with demographic Variables and Part-B consisted of 30 questions to assess the knowledge on Iron Deficiency Anemia during Pregnancy among Antenatal Mothers which was developed by the investigator based on the review of literature, discussion with experts and investigators personal experience.

Scoring key: Each question was given 4 options. Each correct answer was awarded score 1. Each incorrect answer was awarded score "0"

Scoring interpretation

Level of knowledge	Score	Percentage %
Inadequate knowledge	1 to 10	1 to 33
Moderately adequate knowledge	11 to 20	34 to 67
Adequate knowledge	21 to 30	68 to 100

Method of Data Collection: The investigator explained the objectives, method of data collection to the clients and reassured the client that the collection will be kept confidential Verbal concern was obtained from the samples. The samples was chosen through non probability Convenient sampling technique . A total number of 52 clients who met the inclusion criteria were selected . The investigator assessed the Knowledge and it was assessed by Structured Questionnaire on Iron Deficiency Anemia during Pregnancy In case of any doubts the investigators clarified the doubts.

The investigator collected information regarding section-A [demographic data] and section-B [knowledge assessment tools] and the responses marked simultaneously. It took around 15 minutes from each sample to obtain the necessary data. The investigator thanked the participants for extending their fullest co-operation.

Statistical analysis was conducted using Statistical Package for Social Sciences-16.

RESULTS

Table 1: Frequency and percentage distribution of demographic variable of antenatal mothers

N = 52

S. No.	Demographic Variables		No. of respondents (n)	Percentage Distribution (%)
1.	Age of the mother	< 19 years	24	46.2
		20-25 years	11	21.2
		26-30 years	12	23.1
		31-35 years	5	9.6
2.	Type of family	Nuclear family	32	61.5
		Joint family	20	38.5
3.	Number of children in the family	None	15	28.8
		One	12	23.1
		Two	11	21.2
		Three	14	26.9
4.	Dietary pattern	Vegetarian	28	53.8
		Non - vegetarian	24	46.2
5.	Monthly income	Below Rs.2000	18	34.6
		2,000 - 3,000	12	23.1
		3500 - 5000	11	21.2
		Above 5000	11	21.2
6.	Education	Illiterate	20	38.5
		Primary school	15	28.8
		High school	8	15.4
		College and above	9	17.3
7.	Place of living	Rural	29	55.8
		Urban	23	44.2

Conted…

8.	Religion	Hindu	26	50.0
		Muslim	10	19.2
		Christian	16	30.8
9.	Occupation	Employed	29	55.8
		Housewife	23	44.2
10.	Type of work	Sedentary	31	59.6
		Moderate	18	34.6
		Heavy	3	5.8

Table 2: Frequency and percentage distribution of level of knowledge on iron deficiency anemia during pregnancy
N = 52

S. No.	Knowledge Level	No. of respondents (n)	Percentage Distribution (%)
1.	In adequate knowledge	9	17.3
2.	Moderately knowledge	43	82.7
3.	Adequate knowledge	0	0.0

Table 3: Association of level of knowledge of antenatal mother regarding Anemia with their demographic Variables
N = 52

S. No.	Demographic Variables	Class	Knowledge Level		Chi-Square Value	DF	P-Value
			In adequate	Moderately adequate			
		Primary school	3	12			
		High school	2	6			
		College and above	2	7			
1	Place of living	Rural	2	27	4.966	1	0.026*
		Urban	7	16			
		Christian	4	12			
2	Occupation	Employed	2	27	4.966	1	0.026*
		Housewife	7	16			
		Moderate	2	16			
		Heavy	1	2			

* - Significant at 5% level   ** - Significant at 1% level

All other demographic variables P-values were not significant at 5% level. Hence we can say that all other demographic variables are not significantly associated with the level of knowledge about anemia of pregnant women.

DISCUSSION

The major consequences of anemia in pregnancy are maternal mortality and morbidity as well as low birth weight leading to increased infant mortality. Indeed, it is a known risk factor for many maternal and fetal complications. Maternal risks during antenatal period are poor weight gain, preterm labors, PIH, placenta previa, accidental hemorrhage, eclampsia, premature rupture of membrane (PROM). Maternal risks during intra and postnatal period are postnatal sepsis, subinvolution, embolism.[8]

Sahar M Yakout et al (2014) investigated the effect of iron supplementation and nutritional education among

anemic pregnant women on their perinatal outcomes. The research design used in this study is cross sectional. A total number of 100 pregnant women in their beginning of last trimester was selected and followed until delivery. Women with a past history of preterm delivery were excluded. Anemia was defined as hemoglobin level of < 11 g/dl. in current pregnancy. Women were interviewed in the out pat ient by using interview questionnaire sheet and given oral iron, nutritional education sessions. Also, she interviewed on the day of delivery and the data from the interview and medical records (Apgar score, weight, mode of delivery & hemoglobin level) were recorded on a pre-designed questionnaire.The results of this study revealed that 90 % of pregnant women had Hb less than 11 gm/ dl in the last trimester so, after implementation of educational intervention session and iron supplementation, most of the study sample recorded increase in Hb concentration and improve their perinatal outcomes at delivery.[9]

Godara sushila et al (2013) conducted a study to determine the compliance of the pregnant women and factors related to iron tablet consumption behavior among pregnant women. Response to iron deficiency anemia is related to the dose and schedule of a iron tablets and diet. Noncompliance reduces treatment benefits and is associated with poorer prognosis. A detailed questionnaire designed to assess the antenatal women compliance. Eight hundred and sixty women of 16-30 wks pregnancywho received iron tablets daily for 90 consecutive days in Rohtak city of Haryana state. This study shows that compliance is related to education of the pregnant women and proper explanation of instructions by doctor, pharmacist and nurses, help to improve the compliance but much can be done to improve existing iron supplementation programs in developing countries by ensuring that iron tablets of good quality are available at all levels of care.[10]

CONCLUSION

Anemia during pregnancy is a global public health challenge facing the world today, especially in the developing countries. Anemia in pregnancy is an important contributor to maternal mortality/morbidity as well as to the low birth weight which in turn might contribute to increased percentage for infant mortality. In medical science, the morbidity and mortality are high in diseases where the cause is unknown or where there is no specific treatment. In nutritional anemia, the cause is

not only known, but there are also simple interventions to both prevent and treat the problem. The cost is also well within our means.

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A Study to assess the Effectiveness of Standard Operating Procedure Related to Peripheral Intravenous Therapy on Prevention of Intravenous Related Complications among Staff Nurses

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ABSTRACT

Background: The Nursing profession has become an epicentric concept in the modern world with the changing lifestyle within the culture and the thinking of the people, it serves as the guiding force for service and for the peace of the society. Nurses do various functions in their routine work in the clinical setting and one among them is Intravenous cannulation and it is a very common therapeutic procedure in patient care[1]. Intravenous cannula is a little plastic tube that has been mounted on a needle for insertion into the client's vein who require frequent access to the blood stream. Forms of intravenous injection and infusion began as early as 1670[1].

Aims and Objectives: To assess the existing practice related to peripheral intravenous therapy on prevention of intravenous related complications among staff nurses. To evaluate the effect of standard operating procedures related to peripheral intravenous therapy on prevention of intravenous related complications among staff nurses.

Materials and Method: Quantitative research approach and Observational research study design was used for the study. 75 samples were selected as per criteria.

Result and conclusion: The result of this study shows that by following standard operating procedure intravenous related complication can be prevented which is statistically proved. Study suggest that all nurses are following SOP but few of them are not following complete steps in the SOP. Complications were observed in new staff nurses rather than the experienced staff nurse's.Overall standard operating procedure relatedto peripheral intravenous therapy on prevention of Intravenous related complications was effective.

Keywords: SOP, Intravenous complications.

INTRODUCTION

The cannulation is associated with risk to nearby structures, especially in the hands of inexperienced operator. Veins commonly lie close to arteries and nerves both of which can potentially be damaged by a misplaced needle. The nurse must be able to recognize the indications, advantages and disadvantages associated with each device[8].

Intravenous cannulation refers to the technique of venipuncture to insert an intracath or needle, whole interlip lies in a vein for people who frequently require access to the blood stream[9]. Intravenous catheter placement is an extremely common, painful procedure performed in all the ages and health care settings[8]. Peripheral intravenous cannulation is a common practice, frequently used and crucial in an emergency care[9].

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Intravenous catheters become more widely used in today's healthcare environment, nurse require expert knowledge in relation to venous catheter maintenance to prevent complications and maximize efforts to optimize the individual's health status. Nurses must know about these safety Peripheral intravenous cannulation to implement in clinical setting to improve the health status of the client and to minimize the complications[10].

MATERIALS AND METHOD

Research Approach: Quantitative research approach.

Research Design: Observational research study design is used for the study.

Variables:

Independent variable: Standard operating procedure related to intravenous therapy.

Dependent variable: complications developed.

Setting: Bharati hospital, sangli

Sample Size: 75

Sample: Staff nurses

Sampling Techinque: Purposive Sampling Technique.

Research Tool:

Section 1: Comprised of demographic data

Section 2: observation check list to monitor SOP.

Section 3: complications observed.

OBSERVATIONS AND RESULTS

Table No. 1: Frequency and percentage distribution according to age and gender

n = 75

Demographic Variables	No. of staff Nurses	Percentage
Age in years		
23-27 Years	37	49.3%
28-31 Years	26	34.7%
32-35 Years	09	12.0%
36-39 Years	03	4.00%
Sex		
Male	23	30.7%
Female	52	69.3%

Above table shows that out of 75 staff nurses, maximum 37 staff nurses i.e. (49.3%) were between age group (23-27 years). 26 staff nurses i.e.(34.7%)of them were between the age groups (28-31years) and very few 9 staff nurses i.e.(12%) and 3(4%) of staff nurses were in the age groups (32-35 years) and (36-39 years) respectively. Maximum number 52(69.3%) of staff nurses were females and remaining 23(30.7%) were males.

Table No. 2: Frequency and percentage distribution and staff nurses according to education and experience

n = 75

Education	Staff Nurses	FD
ANM	08	10.7%
GNM	18	24.0%
PB.BSc	15	20.0%
B.Sc	34	45.3%
Experience in years		
1-6 Years	63	84.0%
6-11 Years	11	14.7%
11-16 Years	01	1.30%

Above table depicts that out of 75 staff nurses, very few 8(10.7%) were studied up to ANM and maximum 34 i.e.(45.3%) of staff nurses were B.sc graduates.15 i.e.(20%) of the staff nurses were PB.Bsc graduates and remaining 18 i.e. (24%) staff nurses were studied up to GNM. Its clear that maximum 63 i.e.(84%) of the staff nurses had experience between 1-6 years, only one staff nurse had experience more than15 years. Remaining 11 i.e. (14.7%) of staff nurses had experience between 6-11 years.

Table No. 3: Frequency and Percentage Distribution of SOP According to Grading

n = 75

SOP(Grading)	Number of staff Nurses	Percentage
Average (<=23)	22	29.3%
Good(24-26)	39	52.0%
Excellent (>26)	14	18.7%
Total	75	100%

Above table indicates that 22 staff nurses i.e.(29.3%) at average category, 39 staff nurses i.e. (52%) in good category & 14 staff nurses i.e.(18.7%) in excellent category.

Table No. 4: Complications Observed according to Staff Nurses Education

n = 75

Education	No Complication	Infiltration	Phlebitis	Local wound infection	Total
ANM	04	04	0	0	08
GNM	12	05	01	0	18
BSC	22	10	01	01	34
PBBSC	14	0	1	0	15
TOTAL	52	19	03	01	75

Above table shows that under 8 ANM nurses 4 patients developed infiltration, under 18 GNM nurses 5 patients developed infiltration and one patient develop phlebitis, under 34 B.Sc. nurses 10 patients developed infiltration and 1 patient developed phlebitis, under 15 PB.BSc nurses 1 patient developed phlebitis.

Table No. 5: Cross Tabulation of SOP Score of Registered Staff Nurses and Comlications Recorded

n = 75

Education	No Complications	Infiltration	Phlebitis	Local wound infection	Total
Average (<=23)	10	12	Nil	Nil	22
Good (24-26)	31	06	01	01	39
Excellent (>26)	11	01	02	Nil	14
Total	52	19	03	01	75

Above table indicates that average nurses had complications of infiltration i.e.12 patients , and 10 patients did not had any complications, out of 31 Good nurses ,6 patients developed complication of infiltration ,1 patient developed phlebitis and 1 patient had local wound infection around cannula , out of 14 excellent nurses ,2 patients developed phlebitis , 1 patient had infiltration and 11 patients did not had any complications related to intravenous cannulation

Table No. 6: Correlation Between Sop Score And Complications Observed

n = 75

A [SOP score]	Correlation Coefficient	1.000	-0.265*	
	Sig(2- tailed)			'P'-Value 0.021
	N	75	75	
B [Complication]	Correlation Coefficient	-0.265*	1.000	
	Sig(2- tailed)	0.021		
	N	75	75	

Correlation is significant at 0.05 levels (2-tailed) above table indicates that there is significant correlation between SOP (A) and complications (B). Hence this shows that SOP is effective in preventing intravenous related complications.

DISCUSSION AND CONCLUSION

Intravenous cannulation is one of the basic procedures that the nurse must be able to do without assistance. The main responsibility of the nurse is the safety of the patient to whom she is giving care. So the researcher undertaken the study.

This study concluded that the knowledge regarding intravenous therapy and its related complications should be improved among staff nurses by incorporating various in service education.

There is significant difference co-relation between SOP related to intravenous therapy and prevention of complications.

Ethical Consideration: Permission was obtained from the research committee of the Bharati Vidyapeeth Deemed University College of Nursing, Sangli and permission taken for data collection from authority head of Bharati Hospital, Sangli. Informed consent was obtained from subjects who are selected for the study. Ethical Clearance was approved by the committee of university.

Source of Finding: Self

Conflict of Interest: Nil

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A Study to Assess the Level of Self-Esteem among Leprosy Patients at Selected Societies of Sangli District

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ABSTRACT

Background: Leprosy may be left the public discourse, Leprosy is still prevalent in Hindustan: from April to September 2016, in six month 79,000 leprosy cases were founded, according to National Health Profile, 2017.It is a gradually progressive disease which damages the skin and the nervous system. Caused due to infection by Mycobacterium leprae, Leprosy leads to leads to skin lesions, disfigurement and lack of sensation in both limbs.

Aims & Objectives: To assess the level of self-esteem among leprosy patient. To find out the association between level of self-esteem with selected demographic variables.

Material & Method: A descriptive research design was used for the study among 330 samples of leprosy patients, the population of the study comprises of Leprosy patients. Inclusion criteria was leprosy patients who are residing at selected societies of Sangli district, who are willing to participate in study.Non probability convenient sampling technique. Analysis was done by descriptive and inferential statistics**.**

Result & Conclusion: 62.4% of leprosy patients are belongs to low self-esteem, 37.6%, of leprosy patients are belongs to mean self-esteem and there is no leprosy patients with High self-esteem.

Keywords: *Self-esteem of leprosy patients.*

INTRODUCTION

"Infectious disease will last as long as humanity itself"

Leprosy may be left the public discourse, Leprosy is still prevalent in Hindustan: from April to September 2016, in six month 79,000 leprosy cases were founded, according to National Health Profile, 2017.It is a gradually progressive disease which damages the skin and the nervous system. Caused due to infection by Mycobacterium leprae, Leprosy leads to leads to skin lesions, disfigurement and lack of sensation in both limbs. Uttar Pradesh had detected more number of cases (13,423) but it was the union territory of Dadra and Nagar Haveli which has the highest prevalence of 7.93 per 10,000, it means nearly 8 people in 10,000 having leprosy. India had eliminated leprosy in 2005, with prevalence rate of less than 1 per 10,000, but it still had world's leprosy burden in 2015. It currently has a prevalence rate of 0.81 per 10,000. Bihar (1.3), Chhattisgarh (3.54), Goa (1.1), Jharkhand (1.23), West Bengal (1.13), Odisha (1.9), Chandigarh (1.25), Delhi (1.26) and Dadra Nagar Haveli (7.93) have higher than 1 case per 10,000 showing that the disease has not been eliminated from all states. There were 105,564 cases of leprosy under treatment while 59,356 were discharged as cured till September 2016[1].

Leprosy may have disappeared from the state›s health mandate, but there is compelling evidence that the infection is returning to the community. Though officially eliminated from the state ten years ago, last year leprosy infected over 16,400 people, 13% of them children. Also, the state accounted for 13% of the country›s new leprosy cases. Statistics also reveal that 57% of the newly detected cases were multibacillary leprosy—an advanced stage of the disease with definite sensory loss in the patient and an increased potential to infect others. This percentage has only gone north over the years, rising from 49% in 2007-08.The trend is similar in Mumbai. Out of the 640 cases detected in 2013-14, 58% were cases of advanced leprosy. It

was a jump of 2% from the year before. Anti-leprosy champions feel urgent steps need to be taken to tackle the disease in children. Even in Mumbai, nearly 12% of the newly diagnosed cases were children. Around 18% of patients had grade-II disability by the time they came to know of the disease.Inwhat underlines the rampant spread of leprosy among children and adolescents, 25 boys from 12 state-run ashram schools were diagnosed with leprosy last year during their annual health check-up. A senior state official said, "We were lucky that none of the boys had deformities. Unfortunately, the incident did not evoke any kind of urgency within the machinery." All 25 continue to be on treatment. With shrinking funds, very few agencies are left to fight the battle against the disease[2].

REVIEW OF LITERATURE

Section I: Literatures related to assessing the level self-esteem among leprosy patients.

A study done by Seshadri D, KhaitanBK,et al in 2015 study conducted to assess the self-esteem of the leprosy patients; to survey dehabilitation in sickness patients and to consider the components influencing dehabilitation. 100 leprosy patients were chosen for the study, Demographic and clinical information were gathered and subjects were controlled the 52-thing AnandarajDehabilitation scale. Result demonstrates that the mean patient age was 30.9 years, 81% of individual having low self-esteem, 51% were at the lepromatous end of the range, and 87% had multibacillary sickness. The mean term of manifestations on the Anandaraj scale, 23% had elevated amounts of dehabilitation; on a normal, scores were in the medium level dehabilitation. Almost 80% of patients from meeting companions, 33% concealed the conclusion from their families and stressed over losing their colleague because of the leprosy, while staying away from leprosy patients[3].

Section II:-Literatures related to assessing the Knowledge of self-esteem regarding leprosy patients

A study done by Graciano-Machuca O, Velarde-de la Cruz EE in 2013 this study find out the knowledge and attitudes toward leprosy patients among students at the University of Guadalajara. This descriptive cross-sectional study included 1,300 students over 18 years of age included in the study. Data were randomly selected regardless of gender and all students were enrolled in either the first, second, or third year of their undergraduate studies. Overall, students showed an intermediate level of knowledge of leprosy patients. Results showed that 67% correctly responded that leprosy is an infectious disease, 64% knew of the presence of skin lesions, and 60% knew that a microbe causes the leprosy disease. Furthermore, 45% correctly responded that leprosy is a disease associated with poverty and 40% responded that leprosy is disabling. Only 31% stated that leprosy is curable. Negative attitudes were evident regarding the question of employing a leprosy patient (57%) and having a leprosy patient as a spouse or partner (30%). The results revealed that there is insufficient knowledge and poor attitudes toward leprosy among students at the University of Guadalajara. It is necessary to improve current health education measures by using updated educational strategies to reduce the stigma of leprosy and the segregation of leprosy patients and their families[4].

MATERIALS AND METHODOLOGY

A descriptive research design was used for the study among 330 saples of leprosy patients, the population of the study comprises of Leprosy patients. Inclusion criteria was leprosy patients who are residing at selected societies of Sangli district, who are willing to participate in study. Non probability convenient sampling was used fornthe study. The study was conducted at selected leprosy societies of Sangli district. The process for data collection based on modified Rosen berg self-esteem scale used. The tool was divided into two sections. The first section contained demographic variable of leprosy patients. The second section contained Rosen berg self-esteem scale. The correct answer scored with one mark. For the modified Rosen berg self-esteem scale the grading of the score was formulated by investigator with the help of statistician and educationist. The total score was divided in to 3 categories, 10-16 marks indicates as low self-esteem, 17-33 marks indicates mean self-esteem, and 34-40 marks indicates high self-esteem of leprosy patients. Permission was obtained from the research ethical committee of the Bharati Vidyapeeth Deemed University College of Nursing, Sangli and permission taken for data collection from authority head of councilor of sangli Miraj Corporation area of Sangli. Informed consent was obtained from subjects who are selected for the study.

A prior permission was taken from head of authority councilor of Sangli Miraj Corporation area of Sangli.

Researcher visited the selected areas and selected the samples as per above given criteria.The data collection began from **3-8-2017 to 04-9-2017.** Informed consent was taken from sample after explaining purpose and objectives of the study. Assessed the self-esteem of leprosy patients through modified Rosen Berg self-esteem scale. Plan for data analysis was done based on the objectives of the study the level of self-esteem and Pearson's chi square test was obtained to determine the association between the levels of self-esteem with selected demographic variables.

RESULT AND DISCUSSION

Frequency and percentage distribution of demographic variables shows that maximum leprosy patients 42.4% belonged to the age group 61 to 65 years. 42.2% belonged to the age group of above 65 years, 13.3% belongs to 56 to 60 years. And no one has in 46-50 & 51 to 55 age group. In gender category 65.8% of leprosy patients are males and 34.2% of leprosy patients are females. In religion category 64.8% of leprosy patients are belongs to the Hindu religion, 24.2% of leprosy patients are from Christian Religion and 11% of leprosy patients are from Muslim religion. In marital status all 100% of leprosy patients are married and there is no Unmarried and Widow Leprosy patients. Frequency and percentage distribution of self-esteem indicates that, 62.4% of leprosy patients are belongs to low self-esteem, 37.6%, of leprosy patients are belongs to mean self-esteem and there is no leprosy patients with high self-esteem. And Association between level of self-esteem with selected demographic variables indicates that in all above three categories like Age, Gender, and Religion there is no presence of significant association between levels of self-esteem with selected demographic variables.

CONCLUSION

The study concludes that maximum leprosy patients have low self-esteem and need to improve self-esteem level of leprosy patients residing in selected areas of sangli district.

Conflict of Interest: Nil

Source of Funding: Self-funding

Ethical Considerations: Ethical committee letter were submitted to the Bharati Vidyapeeth (to be Deemed) University, Pune and obtained permission from university to conduct the research. Permission from concerned authority and parent of each sample were obtained before data collection.

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Effectiveness of Warm Footbath on Fatigue among Patient with Chronic Renal Failure

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ABSTRACT

Kidney diseases are silent killers, which largely affect the quality of life. As the kidney function slows the symptoms of uremia are experienced includes feeling of tired or weak, shortness of breath, loss of appetite, nausea, vomiting, etc. fatigue is a debilitating symptom experienced by CRF patients. Fatigue has a considerable effect on patients health related quality of life. A study is conducted to evaluate the effectiveness of warm footbath on fatigue among patient with chronic renal failure. A one-group pretest posttest design is used for the present study. The study is conducted at the Pradyumna Bal Memorial Hospital (KIMS) in Nephrology unit (both male and female) ward. Sample size consists of 30 hospitalized CRF patients who met the inclusion criteria by using the purposive Sampling technique. Structured interview schedule of Piper fatigue Scale is used to assess the fatigue. The study started with pre assessment and followed by warm footbath given. Footbath procedure is held for 30 minutes upto 7 days. The mean posttest score (y=2.76) is lower than the mean pretest score (x=7.19). The paired t test is found to be highly significant and the P less than 0.001. Based on the chi-square values and the P values obtained in the following demographic variables has the significance such as age, sex, education, occupation and years of suffering with CRF. The study concluded that the warm footbath is effective in reducing the fatigue of patients with CRF.

Keywords: *Chronic renal failure, effectiveness, fatigue, warm footbath*

INTRODUCTION

Kidneys are the primary excretory organs. Kidneys regulates the body's fluid, electrolyte and acid base balances while removing toxic substances from blood and excreting them in urine.[1]

Diseases of the kidneys are often clinically 'silent' and may be detected by biochemical testing such as measurement of plasma creatinine or testing of urine.[2]

Chronic renal failure is defined as progressive irreversible loss of functioning renal tissue such that reaming kidney mass no longer maintain the body's internal environment. It is defined as either the presence of kidney damage or glomerular filtration rate less than

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60ml/min for 3 months or longer. Chronic renal failure can develop insidiously over many years, or it may result from episode of acute renal failure from which client has not recovered.[3]

As renal function progressively deteriorates, every body system becomes affected. Fatigue is a highly prevalent symptom experienced by persons who live with chronic illness, fatigue including malnutrition, anemia an uremia.[4]

Over 50% of end stage renal disease patients complained of persistent fatigue been the initiation of dialysis therapy and continued to experience while on dialysis and which persisted nearly all the time. The symptom of Fatigue can able to identify by end stage renal disease patients who are under hemodialysis treatment as a distressing and disabling symptom that interferes their ability to enjoy life and to take care of themselves.[5]

In recent years, the use of complementary and alternative medicine has increased in conventional health care settings. Hydrotherapy is commonly used for relaxation and to maintain a person's state of

health. A warm footbath warms the skin, which causes vessel dilation and induces heat dissipation.[6] Footbath is an effective method of relaxation, since it induces significant increase in sympathetic activity. In addition, footbath increases white blood cells and natural killer cells cytotoxicity. By improving the quality of blood, more nutritients are available for cells to us and toxins are managed more efficiently.[7]

METHODOLOGY

Quantitative research approach and one group pretest Posttest experimental design is used for this study. The study is conducted at the Pradyumna Bal Memorial Hospital (KIMS) in Nephrology unit (both male and female) ward. Sample size consists of 30 hospitalized CRF patients who met the inclusion criteria by using the purposive Sampling technique. Structured interview schedule of Piper fatigue Scale is used to assess the fatigue. After obtained the research committee and ethics committee permission, consent has been taken from the sample. The study started with pre assessment and followed by warm footbath given. Footbath procedure is held for 30 minutes upto 7 days.

RESULTS

Description of demographic characteristics: Majority of patients 10 (33.33%) belonged to the age group of 50-59 years, male patients 17 (56.67%) are higher number, Majority of the patients 22 (73.34%) are Hindu, Most of the patients 13 (43.33%) are studied secondary education, Maximum number of the patients 10 (33.33%) are private employee, Most of the patients 10 (33.33%) of patients are suffering 2 – 3 years of CRF.

Table 1: Frequency and Percentage Distribution of study sample according to Age in years

Age (Years)	Frequency (n)			Percentage (%)
	M	F	Total	
30-39	3	2	5	16.67%
40-49	6	3	9	30%
50-59	4	6	10	33.33%
60-69	4	2	06	20%
Total	17	13	30	100%

Table 2: Frequency and Percentage Distribution of study population according to educational background

Education	Frequency (n)			Percentage (%)
	M	F	Total	
Illiterate	1	3	4	13.33 %
Primary	4	3	7	23.34%
Secondaty	8	5	13	43.33 %
Higher Secondary	4	2	6	20 %
Total	17	13	30	100%

Table 3: Frequency and Percentage Distribution of study population according to occupation

Occupation	Frequency			Percentage (%)
	M	F	Total	
Daily labour	2	2	4	13.33%
Private employee	6	4	10	33.33%
Govt. employee	4	5	9	30%
Business	4	1	5	16.67%
Others	1	1	2	6.67%
Total	17	13	30	100%

Level of fatigue before warm footbath: Out of 7 patients in the category of moderate level of fatigue 3 (42.85%) were male and 4 (57.15%) are female. Further, out of 23 patient in the category of severe level of fatigue 14 (60.86%) are male and 9 (39.14%) are female. Mean and standard deviation of pretest group 'x' is 7.200.73, median is 7.13, minimum is 4.68 and maximum is 8.04.
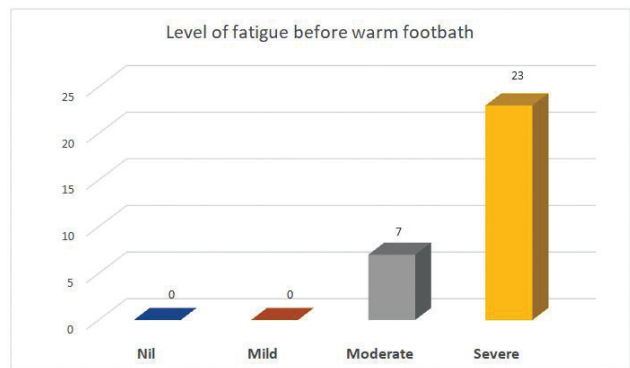
Graph 1: Bar diagram showing the frequency distribution of level of fatigue before warm footbath

Level of fatigue after warm footbath: Out of 30 patients, all are coming under the category of mild level of fatigue, 13 (43.33%) were female and 17 (56.67%) are male. None of the them is present in the category of moderate and severe level of fatigue. Mean and standard deviation of posttest group 'y' is 2.760.22, median is 2.72, minimum is 2.36 and maximum is 3.31.
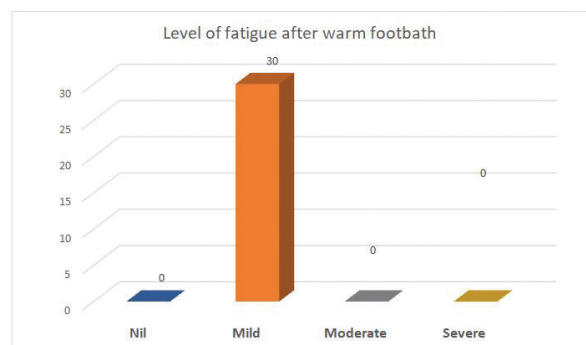
Graph 2: Bar diagram showing the frequency distribution of level of fatigue after warm footbath

Effectiveness of warm footbath on fatigue among patient with chronic renal failure: Student's t test have been applied to test the significance of difference between pretest scoring and posttest scoring of relief from fatigue level. Calculated value of t=28.38. Here degree of freedom 29. Table value of t at 5% level of significance for 29 degrees of freedom is 2.05, which is less than the calculated value of t, which is 28.38. Hence, the test is highly significant. It means there is significant difference between pre warm footbath and post warm footbath therapy for relief of fatigue in CKD patients. P<0.001.
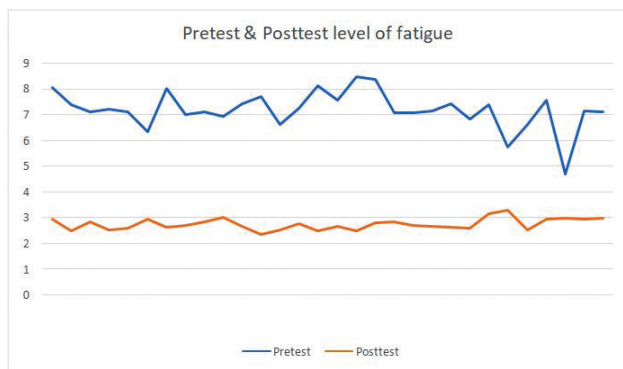
Graph 3: The line diagram showing the Pretest and posttest level of fatigue

Association between the levels of fatigue with selected demographic variables: Based on the chi-square values and the P values obtained in the following demographic variables has the significance such as: age, sex, education, occupation and years of suffering with CRF.

CONCLUSION

The study result shows that the warm footbath is very effective to reduce the fatigue for patient with chronic renal failure. Warm footbath reduce the toxins in the body and improve the quality of life.

Ethical Clearance: Taken from Institutional Ethics Committee, Kalinga Institute of Medical Sciences(KIMS), KIIT University, Bhubaneswar.

Source of Funding: Self.

Conflict of Interest: Nil.

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A Study to Assess the Risk of Diabetes Mellitus among the Adult Population in a Selected Community Panikhaiti, Guwahati Assam

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ABSTRACT

Prevalence of type 2 diabetes mellitus is increasing globally and has reached epidemic proportion in many countries. The study was undertaken to assess the risk of diabetes mellitus in a selected community. A descriptive survey was conducted among 40 subjects in a rural population of Panikhaiti, Guwahati Assam. The study subjects were between the age group of 21 to 60years.Participants was chosen by using a convenient sampling technique. Data on socio-demographic factors were collected and clinical measurement (Body Mass Index, Fasting Blood Sugar, Blood Pressure) was measured. IDRS was used to assess the risk status of Diabetes Mellitus. The findings revealed that 32.5% participants were classified under high risk category, 55% had moderate risk and 12.5% low risk.

Keyword: *Risk of Diabetes Mellitus.*

INTRODUCTION OR BACKGROUND

Diabetes is a heterogeneous group of diseases, characterized by a state of chronic hyperglycemia, resulting from a diversity of etiologies, environmental and genetic, acting jointly. Prevalence of type 2 diabetes mellitus is increasing globally and has reached epidemic proportion in many countries. The recent estimates by the International Diabetes Federation showed that the number of adults affected by the disease in 2011 was 366 million which was projected to increase to 552 million by 2030.With increasing burden there is a need to use community based ,simple screening tools to identify the undiagnosed. This study uses the Indian Diabetes Risk Score for identification of Diabetic risk in a rural population.[1]

A study was conducted on "A study to assess the risk of diabetes mellitus among the adult population in a selected community Panikhaiti, Guwahati, Assam."

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REVIEW OF LITERATURE

Achuth KS, Mangala S, Pradeep C et al conducted a study on risk assessment of type 2 diabetes mellitus among adolescent in first year medical students using Indian Diabetes Risk Score. out of 238 samples, 114(47.9%) were found to be in Medium and high risk category, 43(18.1%) were overweight and 68(28.6%) were obese[2].

Mani G, Annadurai K, Danasekaram R Conducted a community based, cross-sectional study was conducted among 100 subjects in 2013 in a rural population ok Kancheepuram district, Tamil Nadu,India. IDRS was used to assess the risk status followed by fasting and 2-hour prandial. blood glucose measurements to identify the diabetic status.According to the study 59% of the participants were classified under high risk category, 30% had moderate risk and 11% had low risk. 7 % were newly diagnosed with diabetes[3].

METHODOLOGY

The objectives of the study were to-

1. To assess the risk of diabetes mellitus among the adult population.

2. To find the association between the risk of diabetes mellitus with the selected socio demographic variables.

3. To find the association between the risk of diabetes mellitus with clinical measurement (Body Mass Index, Fasting Blood Sugar, Blood Pressure).

Design and Sample: The study adopted descriptive survey research design. The sample size consisted of 40 between the age group of 21 to 60 years.Participants were chosen by using a convenient sampling technique.

Instrument: The study tool consist of three tool - tool 1 consist of socio- demographic data about the sample, tool 2 consist of clinical measurement and tool 3 consist of IDRS (Indian Diabetes Risk Score).

Data Collection Procedure: The study was conducted in three parts.

Part 1: A preliminary house to house survey of the village was done to identify adults aged between 21 to 60 years and 40 sample was selected.

Part 2: house to house survey of selected 40 subjects was carried out in the village using predefined and pre tested proforma. Informed consent was taken from all the participants. Data on socio demographic details was collected. Height and weight was checked using standardized method and Body Mass Index (BMI) was calculated. blood pressure was checked.

Data was also collected using Indian Diabetes Risk Score (IDRS) i.e. age, waist circumference, physical activity, family history of diabetes mellitus .

Part 3: At the end of part 2 participants were asked to remain empty stomach overnight (at least 8 hours) and get their fasting blood sugar checked on the following day. Next day morning between 7 am to 9 am, fasting blood glucose was monitored using glucometer.

RESULTS AND DISCUSSION

Table 1 depicts that 13(32.5%) were at a veryhigh risk for Diabetes mellitus, 22(55%) were at moderate risk for Diabetes Mellitus and 5(12.5%) are a low risk for Diabetes Mellitus. Similar study was conducted by Mani G, Annadurai K, Danasekaram R. According to their study 59% of the participants were classified under high risk category, 30% had moderate risk and 11% had low risk[3].

Table 1: Frequency and percentage distribution for the risk of Diabetes mellitus

Sl. No.	Categories	Frequency	Percentage
1.	Very high risk	13	32.5%
2.	Moderate risk	22	55%
3.	Low Risk	5	12.5%

The study reveals that the association between the risk of Diabetes Mellitus and socio demographic variables were not significant. Similar study conducted by Khandhedia SA, Chaudhary AI, Unadkat Sreveals that there was a statistical difference between IDRS and gender, literacy status, waist circumference and family history while no association was found between IDRS and religion[4]. The study also reveals that there was significant association between risk of Diabetes mellitus and clinical measurement.

RECOMMENDATION

1. Similar study can be replicated on larger sample.

2. Community based primary prevention strategies can be implemented at village level to reduce the risk factor for diabetes.

3. We recommend that every individual above 21 years should be assessed for the risk of developing diabetes by calculating the IDRS and those with a moderate to high risk score must have their fasting blood sugar assessed annually, which could motivate them to adhere to lifestyle changes.

CONCLUSION

Diabetes mellitus is a group of metabolic disorder characterized by hyperglycaemia, resulting from defect in insulin secretion or insulin action based on the abnormalities of carbohydrates, protein and fat metabolism. This study reports that the majority of the population in rural area i.e. Panikhaiti, Guwahati are at a moderate risk for diabetes mellitus indicating the epidemiological transition which is happening in rural India. Hence there is a need to emphasize preventive strategies about diabetes mellitus among the population.

Ethical Clearance: Ethical clearance for the study was obtained from the Institutional Ethical Committee, Permission was taken from the Head of the Panchayat. In addition informed written consent was obtained from the samples and they were assured of both anonymity and confidentiality

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A Comparative Study to Assess Nutritional Status among 3 to 5 Years Children of Working and Non-Working Mothers

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ABSTRACT

Background: Know youngsters are those riches for tomtate. Fare thee well from claiming them whether you wish to need solid India. It might have been a trademark previously, 1986. "Health is an essential good from claiming each single person.

Aims & Objectives: To assess the nutritional status among 3 to 5 years children of working mothers. To assess the nutritional status among 3 to 5 years children of non working mothers. And to compare the nutritional status of 3 to 5 years children of working and non-working mothers.

Material &Method: Quantitative research approach, descriptive survey study and non experimental research design was used for the study. The tool was divided in three categories 1) Socio-Demographic Variables 2) Anthropometr0ic Assessment 3) Clinical Nutritional Assessment. The 120 samples was taken for the study, samples are collected by simple random sampling method.

Result & Conclusion: As per study objective the result showed that by analysis and interpretation of data collected from 60 samples 3 to 5 year children of working and non working mothers each group regarding assess the nutritional status. Frequency, percentage and nutritional grade were calculated. Overall study concluded that was 3 to 5 year children of non working mothers nutritional status was better than 3 to 5 year children of working mothers.

Kewwords: *Anthropometric assessment and Clinical Nutritional Assessment.*

INTRODUCTION

Know youngsters are those riches for tomtate. Fare thee well from claiming them whether you wish to need solid india. It might have been a trademark previously, 1986. "Health is an essential good from claiming each single person. Every Also each distinct may be the subject of the nat. The child's future relies upon the physical, educated support Furthermore enthusiastic Growth. Consequently the family, the Group and the nation over all in all must make states on shape those customized for kid for advantageous part in Nation's future. The sum exertions must be focused with secure a upbeat also prosperous future to sprouting blooms.[1]

Dietary status the condition for specific figure for the people respects affected by those eating regimen, those levels from asserting supplements in the specific figure what's greater capacity for the people levels should take care of run of the mill metabolic integument. For grown-ups, general adequacy is assessed In the long run Tom's examining estimating weight Besides stature, those impacts might be normally conveyed Concerning representation the specific figure impostor list, those extent of weight (kg) will height (m) specific figure fat may moreover be evaluated, In the end Tom's scrutinizing estimating skin overlay thickness, Likewise muscle broadness is Also estimated. [2]

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For youngsters, weight additionally stature to agdistis contrasted with standard data with enough supported children. The extension in the circumduction of the psyche and the change of the bones may furthermore an opportunity to be estimated. Status for esteem to unmistakable vitamins Besides minerals will be regularly chosen In the end Tom's scrutinizing lab tests, Perhaps estimating those blood pee center of the supplements Additionally their metabolites, or In the end Tom's examining trying for specific metabolic response.[3]

REVIEW OF LITERATURE

The reviewed literature for the present study were organized under the following headings-

Section I: Comparative nutritional assessment: Nkiru N. Ezeama1, Prosper O. U. Adogu, Christian C. Ibeh and Echendu D. Adinma Department of Community Medicine, NnamdiAzikiwe University Teaching Hospital, Nnewi, Nigeria study was conducted on Comparative Analysis of the Nutritional Status of Under-five Children and their Mothers in Rural and Urban Areas of Anambra State, Nigeria .Aim of the study Malnutrition in the form of under-nutrition is still a major public health problem in developing countries of sub-Saharan Africa including Nigeria. This study compares the nutritional status of under-five children and their mothers in rural and urban areas of Anambra State Nigeria. Methodology: This was a comparative cross-sectional study carried out in one urban and two rural local government areas of Anambra State, Nigeria namely Awka South, Dunukofia and Anaocha respectively. A total of 657 mother-child pairs were selected from eligible households using the multistage sampling technique. Data on household food security was obtained from the mothers using semi-structured, interviewer-administered questionnaires while anthropometric measurements were carried out on the children and their mothers using weighing scales and height boards. Results: The overall prevalence of stunting, wasting and underweight among the under-five children in this study were 15.1%, 18.1% and 10.4% respectively, and the proportions were higher in the rural area than in the urban. The prevalence of stunting (height < 152 cm) in the mothers was 7.9% in the rural area compared to 9.1% in the urban area. Majority of the women were overweight (BMI ≥ 25.0), more in the

urban (69.3%) than in the rural (59.2%).Conclusion of study confirmed that under-five under-nutrition remains a serious public health problem in Anambra State, Nigeria. In order to reduce child morbidity and mortality to which malnutrition contributes significantly, concerted effort must be made by the government to improve child and maternal nutritional status by directing attention to improving household food security through developing and implementing policies that improve the livelihoods of the population[4].

Section II: Nutritional assessment: Dr. Manjusha M Indian institute of hygiene and Public Health, Kollata(2017) The studywasConducted on a study to assessment of nutritional status of under five children using composite index of anthropometric failure (CIAF) in a rural area of Singpur block, Hooghly district, West Bengal. Reduction in malnutrition is the indirect MDG related goal to improve the child heath. The most common problem among under five children in India is under nutrition. there for this study was done to find out the prevalence of under –nutrition among the under five children and also to find out the determinants of under nutrition using CIAF methods : this cross sectional study was conducted in rural Bengal among under five children, WHO z score system and CIAF classification was used to categories the nutritional status . Results: Out of 182 children (47.5%) were undernourished and the under nutrition was more prevalent among girls (46.8%)[5.]

MATERIALS AND METHODOLOGY

In this study, quantitative research approach is used to a descriptive survey to A Comparative Study to assess nutritional status among 3 to 5 years children of working and non-working mothers in selected slums of Sangli- Miraj -Kupwad corporation area. Descriptive survey design was used for the study. The variables used in study are demographic variables consist of Age, Gender,Family Monthly income in Rs, Birth order. The research proposal with data collection tool was presented in front of ethical committee before getting ethical approval. Permission from authorities selected of survey area. Approached the samples, explained about purpose of the study and assured them that the confidentiality will be maintained before the written consent. The tool was divided in to three sections 1) Socio-Demographic Variables 2) Anthropometr0ic Assessment 3) Clinical Nutritional Assessment After the validity and reliability

of the tool final tool was prepared for final data collection. The permission from concerned authority was taken prior to study. As my samples were the 3 to 5 yrs children of working and non working mothers in selected slums. Consent from samples before assessment and after data collection data keep confidential. The samples were selected as per the inclusion and exclusion criteria of this study. Sample size was 120 and analysis done by descriptive and inferential method.

RESULT AND DISCUSSION

Frequency and Percentage distribution of 3 to 5 yrs according to Socio demographic Variable indicates33 (55%) Children of working mother & 24(40%) children of non working mothers belong to age group of 3 to 4 years, 32 (55.3%) children of working mother & 30 (50%) children of non working mothers belong to male gender, 48(80%) 3 to 5 year children of working mothers and 38(63.3%) 3 to 5 year children of non working mothers had having family income Rs5001-10000, 33(80%) 3to 5 year children ofworking mothers 37(61.7%) children from non working mothers belong to 1st birth order.

Frequency comparison of 3 to 5 yrs children according to Anthropometric Assessment indicates Male 3 to 5 year children of working mother and 6 male 3 to 5 year children of nonworking mothers had height appropriate to age.3male 3 to 5 years children of working mother and 7 male 3 to 5 year children of non working mothers had weight appropriate to age.13 male 3 to 5 years children of working mother and 5 male 3 to 5 year children of non working mothers had head circumference appropriate to age.22 male and 24 female 3 to 5 year children of working mothers and 15 male and 24 female 3 to 5 year children of non working mothers had chest circumference not appropriate to age.26 female 3 to 5 years children of working mothers and 27 female 3 to 5 years children of non working mothers had mid arm circumference appropriate to age.32 male and 25 female 3 to 5 year children of working mother and 21 male 29 female 3 to 5 year children of non working mothers had body mass index not appropriate to age.

Comparison of clinical nutritional assessment of 3 to 5 years children of working mothers and non working mothers indicates 3 to 5 year 19 children of working mothers and 3 to 5 year 50 children of non working mothers had dental carries normal to observation.3

to 5 year 30 children of working mothers and 3 to 5 year , 03 children of non working mothers had tongue color abnormal to observation.3 to 5 year 15 children of working mothers and 3 to 5 year 01 children of non working mothers had pale eyes abnormal to observation.

Frequency Comparison of 3 to 5yrs according nutritional grade indicates3 male and 4 female 3 to 5 years of working mothers and 6 male and 4 female 3 to 5 years of non working mothers had normal nutrition status.

CONCLUSION

Through the study had good outcome there is need of education to 3 to 5 year children of working and non working mothers regarding nutritional requirement and malnutrition of 3 to 5 year children.

Conflict of Interest: Nil

Source of Funding: Self-funding

Ethical Considerations: Ethical committee letter were submitted to the BharatiVidyapeeth (to be Deemed) University, Pune

And obtained permission from university to conduct the research. Permission from concerned authority and parent of each sample were obtained before data collection.

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"Floating Heart" Application of Holographic 3D Imaging in Nursing Education

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ABSTRACT

This study combined 3D holographic imaging and hand gesture recognition technologies to develop an intuitive and control-based interactive holographic imaging teaching aid system for practical application in nursing education to enhance teaching effectiveness. Cardiovascular structure was developed through 3D scanning, which was then subjected to postproduction to be converted into a 3D vector layer object. After segmenting the 3D object into different images with different viewing angles, a self-made holographic projection display equipment was used to project a 3D floating image to enhance the on-site experience of instructors and learners. By using a gesture sensing module, instructors could freely operate teaching objects by using intuitive gesture controls during on-site teaching. This system was applied to the 2-year adult nursing curriculum offered by the nursing department. After the coursereflections of 90 students were summarized into the following categories: rescue imagination, conquer the abstract, transform 2D into 3D, facilitate self-controlled learning, and dynamically understand memory. The system effectively enhanced the convenience of teaching as well as the learning motivation and effectiveness among students. In the future, we hope that this system is applied to other professional courses and becomes a powerful on-site teaching aid.

Keywords: Holographic 3D Imaging, Nursing Education

INTRODUCTION

In nursing education, nursing educators are devoting efforts to integrating clinical experience into classroom teaching[1]. Effective teaching methods enable students to absorb relevant clinical knowledge and techniques. In the current nursing education scenario, diverse teaching methods and technologies are applied, and clinical simulation learning has become increasingly popular[2]. Clinical simulation learning is different from conventional, structured teaching methods that are instructor-based and use standard, inflexible teaching

materials. Currently, both the learning and living environments of students have become digital. Nursing educators must develop methods to employ the design of situational simulation lesson plans to achieve expected learning goals. Current technologies such as 3D simulations, virtual reality (VR), and augmented reality (AR) into the nursing curriculum, which is expected to be a future nursing education trend[3].

Holographic three dimensional imaging presents real experiences that cannot be achieved using VR. A 3D space can be seen from a 2D range without the use of stereoscopes or VR glasses, and a sense of VR can also be created where objects appear to be directly in front of the viewer. Because the effect presented by 3D images is closer to the vision of both eyes, unlike the effectpresented by 2D image representation, it is more capable of strengthening memory and enhancing learning effects in teaching.

Among current VR systems, holographic projection is the imaging medium that can most effectively

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represent 3D effects of objects, andthe sense of reality experienced by viewers through object representation is nearly impossible to achieve using other VR systems. Moreover, viewers are not required to wear 3D glasses or VR glasses for viewing,and several viewers can directly view the projections at different positions and spaces. Teaching systems can be combined with an intuitive control interface, such as voice control and gesture control, to enable instructors to view and perceive using simulated touch as theydirectly adjust the viewing angles, sizes, and image layers of objects in the teaching content. Thus, in conjunction with corresponding dynamic commentary content, this teaching aid systembecomes similar to a treasure chest with tens of thousands of real objects, which makes teaching activities interesting, convenient, and real.

This study was conducted using a cross-disciplinary collaboration; we performed cross-disciplinary division of labor with a communications instructor to design and investigate an interactive teaching system that combined 3D hologramprojection and hand gesture recognition. We used gesture control and 3D hologram technology and detected the intuitive movements of hands in space through a Leap Motion sensor. This information enabled the system to determine the operational intention of users,without the requirement of input devices such as keyboards and mice, and control the movement, flipping, scaling, and replacement of 3D screen objects. During the research, we assembled the course materials as animated 3D models. Instructors could use our gesture recognition system to operate and control the 3D models. The finished product involved the use of a 50-in. full-size holographic projection screen for classroom teaching. In the future, teaching aids for other physiological processes such as cerebral circulation,respiration, and digestion processes will be introduced in this system, and it is expected that this interactive teaching system can trigger the learning motivation of students and enhance learning effects to actively and effectively achieve learning goals.

Simulation training is often used in complex and highly technical environments such as in the aviation, military, and nuclear power industries. However, in nursing education, theories related to the application of nursing education simulations explain the efficient use of clinical simulation experiences to enhance the professional knowledge of nursing personnel and promote the technical abilities of nursing graduates. For example,

Waldner and Olson[4] combined Benner's newcomers and experts with Kolb's experiential learning theory to examine the use of simulations in the context of nursing education.Through the transfer of learning experience and theoretical knowledge in the classroom, nursing graduates can continue to improve after graduation and ultimately become highly competent experts. Kolb[5] described how learners actively reflect onincorporating new experiences into their existing knowledge bases and obtaining greater knowledge. The active attempts of learners combined with active reflections enable the internalization of knowledge and skills. Learners may provide different reactions, some of which may be incorrect, to understand the consequences of certain types of emergency situations and why certain reactions should be avoided. Such experiments are unthinkable in actual clinical environments; however, in a VR that has no risk of patient injury, they can provide a valuable learning experience. Learning theory can be applied to virtual clinical simulation teaching. Several studies have proven that this teaching principle effectively assists students in acquiring professional knowledge in fields such as clinical medicine, aeronautics, professional sports, and music performance, where learning outcomes are achieved through repeated and continuous practice, rigorous evaluation, and feedback mechanisms[6].

In 2010, Kilmon, Brown, Ghosh, and Mikitiuk6 developed a 3D VR curriculum to test the ability of emergency room (ER) nursing personnel to handle emergencies. This curriculum was initially based on an imaging system database for various equipment and medication required for cardiopulmonary resuscitation. These images were used to develop high-fidelity prototypes that were comparable to actual sizes, which were subsequently operated on a highly sensitive computer screen. Currently, these prototypes are repeatedly improved to providelearners with easier operations and with the hopes ofexpanding their applications to more specialized fields. Nicely[7] applied VR technology to train senior nursing students on cross-team communication. The situational design involved the examination of numerous injured patients in the ER; the results revealed that students could enhance their nursing knowledge and skills required during disasters and could realize the importance and role of cross-team communication in situations with many injured patients. Frost[8], a professor of nursing at Canberra University in the United States, collaborated with Microsoft to develop teaching materials

for physical examinations and assessments by using AR technology to provide an innovative learning method to students. In the lesson plan design, students learn clinical reasoning through interaction with holographic patients. Schneider[9] applied the VR technology to clinical nursing health education; his research team developed a VR health education curriculum for chemotherapy patients. In a random clinical experiment design, the experimental group received VR health education, whereas the control group received regular health education. The results revealed that the VR teaching materials could effectively disperse the attention of patients and thus significantly reduce the degrees of symptoms of discomfort such as sadness and anxiety.

The rapid development of software and hardware technology has resulted in basic achievements in 3D VR educational curricula in a mere few years. With the widespread use of the VR technology and the reduction in costs, its applications in nursing education may become more common in the future.

PROCEDURE

This research involveddesigning nursing teaching curriculum content, designing and constructinga 3D holographic platform, modeling and postproducing3D objects, and applying the hand gesture control technology. Ultimately, all these dimensions were integrated to develop an interactive 3D imaging teaching aid system. Its principles and processes are explained as follows.

Stage 1: Designing curriculum design: The 3D holographic imaging and gesture recognition technology developed in this study were applied to the 2-year adult nursingcurriculumand teaching design for cardiovascular physiology. The introduction of innovative technologies into the curriculum increases the teacher–student interaction and enhances student participation in the classroom; learning with 3D dynamic images extends student learning beyond merely imagination.

Stage 2: Modeling 3D objects and producing multiangle holographic images: The solid model first underwent profile scanning using a 3D scanner to form the digital model of learning through 3D projection. Subsequently, object details in the digital image files were drawn and readjusted, followed by the postproduction angle segmentation process, to generate teaching content that accommodated multiangle synchronized

viewing. A 3D scanner is a scientific instrument that can detect and analyze the shape (geometric structure) and appearance (e.g., color and surface albedo) of objects or environments in the real world. The collected data are often used to perform 3D reconstruction calculations in modeling, as shown in Figure 1.
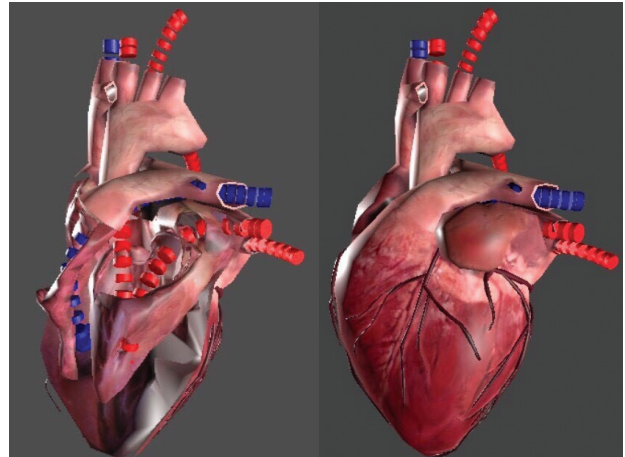
Figure 1: 3D object modeling

Stage 3: Designing a holographic imaging platform: To realistically project objects, we developed a multiangle reflective projection system to project 2D objects and images into 3D space and achieve the goal of floating displays (holographic displays) of objects. A hologram, also called a holographic projection or 3D hologram, is a photographic technique that records all information (amplitude and phase) in the reflected (or transmitted) light waves of a photographed object. The light rays reflected or transmitted by an object can be completely reconstructed using the recorded film, as if the object were present. By viewing images from different positions and angles, different angles of the photographed objects can be seen; therefore, recorded images can enable people to generate a 3D perception. Unlike conventional 3D display technology, holographic technology does not require viewers to wear special 3D glasses;moreover, it is convenient for viewersand cost-effective. Moreover, 3D display methods can introduce the exhibited items to the audience in a multiangle manner, which is more intuitive.

To achieve the optimal display effect, this study used theoretical derivation and repeated experiments and proposed the most effective high-reflection material and construction angles to obtain a holographic reflective pyramid structure with a screen size of 50 in., thus enabling the projected objects to appear vivid, as shown in Figure2.

Figure 2: Holographic imaging platform

Stage 4: Applying hand gesture recognition and control technology: We used the Leap Motion gesture sensor to combine the gesture control function with the projection display platform for object manipulation. Unity is a cross-platform game engine with highly powerful functions for processing 3D objects and scenes. The finished 3D model was imported into Unity for holographic image production and then combined with the Leap Motion sensor to control hand gestures and perform image manipulations such as rotation, scaling, displacement, and explosion.

By using the information on hand characteristics provided by the Leap Motion sensor, the position, angle, direction, and fingertip positions of the hands were tracked, and this information was used to detect gesture motion. Gesture recognition in this system is divided into manipulation gesture and continuous motion comparison. Manipulation gesture is the comparison of defined gesture characteristics; when the defined gestures are detected on the screen, the corresponding values, such as the distance between two hands, are calculated and output. Continuous motion comparison records a series of screens to record hand movement trajectory and then compares the recorded trajectory with prerecorded motion samples to determine its movement type. Once motion recognition is complete, the system converts the movements into control commands of 3D objects and changes the input to the holographic projection system, as shown in Figure 3.

Figure 3: Hand gesture control

FINDINGS

In addition to presenting the dynamic blood flow of the heart, the interactive holographic imaging teaching aid system for cardiovascular physiology (see Fig. 4) can perform different gesture operations according to the learning situation, including "play," "pause," "accelerate," "decelerate," "shrink," and "zoom in." First, this system was applied to the 2-year adult nursing curriculum. Among the postcourse reflections of 90 students, most students provided positive feedback for this teaching system. The following categories are summarized from student reflections:

Rescue imagination: Students believed that teaching with pictures or imageswas unidirectional in the past, and much imagination wasoften required to understand the training content. Such a system could improve physical learning and reduce the need for imagination. Two students stated the following:

> "I have a concrete impression and do not need to rely on my imagination…"

> "In the past, I could only imagine on my own from images in textbooks…"

Conquer the abstract: Students believed that cardiovascular physiologylearning was difficult because all the contentlearnt became abstract when the teaching involved only images and explanations and they could not observe the actual operations. This teaching system projected 3D images of cardiovascular blood flow before viewers' eyes, thus converting the abstract into concrete form.

Two students stated the following:

> "An imaging system makes abstract things simple…"

"Learning in the past was very abstract and difficult to understand in depth. The imaging system let me overcome the abstract…"

Transform 2D into 3D: Students commented that this system enabled the 3D presentation of cardiovascular blood flow; the entire cardiovascular structure could also be vividly projected in front of viewers. The 3D projection enabled viewers to clearly observe the dissected structure of the heart and obtain an in-depth understanding of the association between the heart's structure and physiology.

Two students stated the following:

"In images that are 3D, the direction of blood flow can be clearly seen…"

"Interactive images are more 3D…real…"

Facilitate self-controlled learning: Students believed that self-controlled and interactive learning not only increased the pleasure of learning but also enhanced their learning impressions. Interactive learning enabled them to explore the mysteries of human physiology more efficiently.

Two students stated the following:

"Self-regulated…no longer just a flat image…"

"Gesture adjustment…experience is real…"

Dynamically understand memory: Students believed that dynamic presentation and self-planning of learning progress enabled the orderly progress of self-learning. In addition to clarifying concepts, dynamic learning could deepen impressions and help connect with previous knowledge to improve memory.

Two students stated the following:

"Interaction strengthens memory and helps learning…"

"Scaling and flipping is more vivid…more effective memory…"
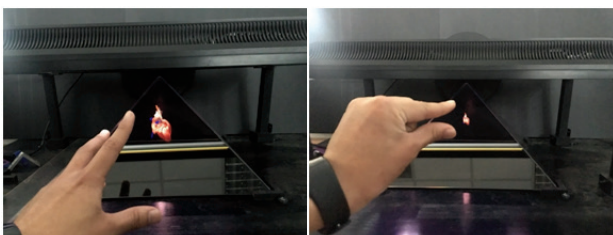
Figure 4: Actual operation

DISCUSSION

The purpose of this study was to develop a teaching aid that combined a 3D holographic imaging platform and a hand gesture recognition function to enable instructors to teach premodeled 3D content and patterns (including zoom, displacement, angle switching, and explosion images) by using intuitive hand gesture controls. With a 3D digital aid, content can be rapidly exchanged, shared, edited, updated with new links, and presented as dynamic functions. Such a teaching aid provides multiple people with a multiangle, synchronized demonstration of virtual objects that meets on-site teaching needs. Learners provided positive feedback regarding the application of this system to the curriculum and stated that it was different from conventional teaching, evidenced by their growth in learning. This finding was consistent with those of aforementioned studies on the effectiveness of applying simulation teaching materials to nursing education. The effectiveness of introducing simulation technology into curriculum design should becontinually verified by nursing educators.

Because only a preliminary analysis was conducted on the postcourse reflections of students in this study, an objective evidence of the enhancement of learning effectiveness by using this system was not obtained. The reliability and validity of this system must be further tested, and rigorous interventional measures must be developed to test the effectiveness of this system and its influence on learning effectiveness. Future research should aim to apply this system to other physiological dynamic changes such as cerebral circulation,respiration, and digestion. This interactive teaching system can make the teaching content more systematic and dynamic, thus making it more vivid and interesting to learners, thereby achieving the goal of enhanced teaching effectiveness. Finally, this teaching aid system can be easily extended to other professional fields and can become a useful aid for instructors from all departments.

Statement of Human and Animal Rights: We did not submit a human trial review to the Research Ethics Review Committee. As it is a regular teaching activity, we have only used the developed teaching aids as a precursor test.

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A Study to Assess the Effectiveness of Planned Teaching Programme (Ptp) on Knowledge Regarding Selected Psychiatric Emergencies among Staff Nurses at Selected Hospitals of Sangli District

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ABSTRACT

Mental health nurse has many of significant role in caring of psychiatric emergencies in emergency department of the hospital. The nurses carry various functions like support, reassurance, provision of medications as prescribed, involving in provision of therapies directly or indirectly, maintenance of therapeutic relationship, development of self-confidence, etc.[1]

Objectives:

1. To assess the existing knowledge regarding selected psychiatric emergencies among staff nurses at selected hospitals.

2. To evaluate the effectiveness of planned teaching Programme regarding selected psychiatric emergencies among the Staff Nurses at selected hospitals.

3. To find out the association between pre- test knowledge scores with selected demographical variables.

Materials and Method: A pre-experimental one group pre-test post-test design was used to "A study to assess the effectiveness of planned teaching programme on knowledge regarding selected psychiatric emergencies among staff nurses at selected hospitals of sangli district". In this study was Total 125 Samples were selected by probability simple random sampling method. A Structured questionnaire. Karl Pearson's correlation coefficient formula was used for estimation of reliability. The reliability coefficient 'r' of the questionnaire was 0.75 is more than 0.7, hence it was found to be reliable. The conceptual framework based on the Adaptation theory, developed by Sr. Calisto Roy (1976), with input, processes, effectors, output and feedback.

Result and Conclusion: The structured Questionnaire was used It was found maximum of 8% of hospital staff nurses were having poor knowledge and 89.6 % of hospital staff nurses were having average knowledge and 2.4 %of hospital staff nurses were having good knowledge regarding selected psychiatric emergencies. The post test showed that The maximum staff nurses 58.4% of hospital staff nurses were having average knowledge were as 4.6% of hospital staff nurses having good knowledge score regarding selected psychiatric emergencies. This suggests that there is marked increase in post-test knowledge score, and structured teaching was effective. The chi-square computed between pre-test knowledge and selected variables showed that knowledge was not dependent on age, gender, educational qualification, professional experience and previous knowledge.

Keywords: *planned teaching programme, on knowledge regarding selected psychiatric emergencies among staff nurses at selected hospitals.*

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INTRODUCTION

An emergency is defined as an unforeseen combination of circumstances which calls for an immediate action. Psychiatric emergency is a condition where in the patient has disturbed of thought, affect, and psychomotor activity leading to threat to his existence (suicide) or threat to the people in the surrounding (homicide). Condition needs immediate intervention to safeguard the patient. The types of psychiatric emergencies are suicidal attempts, violence and panic attack, delirium tremens etc.[2]

A study was conducted to see the effectiveness of planned teaching programme on management of violent patient among nursing students, in elite school, in 2000 at Udupi, disclosed that the mean proportion within the post-test was 82.40% that was considerably higher that the pre-test data score of 34.86%. a really extremely important distinction (t=22.62, P< 0.05) was found between pre-test, data score.[3]

REVIEW OF LITERATURE

The review of literature for present study is organized under the following headings

1. Studies related to selected Psychiatric Emergency conditions.

2. Literature related to knowledge regarding selected psychiatric emergencies among staff nurses.

3. Studies related to knowledge of nurses regarding nursing management of selected psychiatric emergencies.

4. Studies related to the effectiveness of Planned teaching programme selected psychiatric emergencies among staff nurse.

1. **Studies related to selected Psychiatric Emergency conditions: Lin Y and Liu H** A was conducted on the impact of violence on psychiatric ward nurses in South Taiwan. The purpose of the study was to explore the prevalence of violence committed by the psychiatric patients against nurses. Two hundred and thirty nurses from a 400-bedded hospital in southern Taiwan were chosen. The results showed that 44.7% nurses had received training regarding violence; 61% of the nurses reported experiencing verbal and physical threat. The verbal expressions of violence were mainly due to drunkenness and physical expression of threat commonly seen in psychotic patients.[4]

2. **Literature related to knowledge regarding selected psychiatric emergencies among staff nurses: Joseph C. A (2005)** A study was an evaluative study was conducted to assess the effectiveness of structured teaching programme on knowledge of suicidal behavior in 2005 at Bangalore You quit offering on that one gathering pre- test, post –test outline for experimental approach might have been utilized. The example measure might have been 60 educators and the information might have been gathered by organized meeting plan. Pre-test uncovered those ways that instructors bring and low level of learning with a simply mean score 21.43 out for 47. Then afterward administering the organized educating support programme post test score has risen to 40. 43 which indicated the adequacy from claiming organized educating support programme.[5]

3. **Studies related to knowledge of nurses regarding nursing management of selected psychiatric emergencies: Sally Wai-Chi Chana (2009)** A study was conducted to evaluate an education programme on suicide prevention for nurses working in general hospitals. There were statistically critical positive progressions in the pre What's more post- test measures about participant's attitudes competence levels. Qualitative information indicated that participant's needed connected the new information they procured to clinical act. They discerned themselves Likewise continuously additional mindful of the issue of suicide aerial attacker Also that's only the tip of the iceberg skillful to problem of suicide and more competent in managing suicide risk. Progressing instruction might be fundamental should facilitate transforms. Those instruction programme Gave could make conveyed will different health awareness professional gatherings and the outcomes further assessed.[6]

4. **Studies related to the effectiveness of Planned teaching programme selected psychiatric emergencies among staff nurse: Lehmann**

LS (2003) A was conducted a study on training personnel on the prevention and management of violent behaviour among 50 staff of a veteran administration hospital in San Antonio. This study showed that trainees had 80.6% of improved knowledge in handling violent behaviour after completing the programme. The study predicted the need for repetition of such training programmes. A study conducted on training programme for prevention of assaultive behaviour in a psychiatric setting in Denver. Three hundred seventeen staff nurses from a mental health centre were sent for a two-day training workshop on preventing and dealing with patients' assaultive behaviour over a period of two years. The result of the workshop was that the number of patient-related assaults on staff dropped from.[7]

RESEARCH METHODOLOGY

Research Approach: Quantitative research approach.

Research Design: Quasi-experimental one group pre-test-post-test design.

Setting of Study: Selected hospitals of sangli district.

Population of the Study: In this study the population consist staff nurses**.**

Sample Size: The sample size selected for the study is 125 staff nurses'.

Sampling Technique: Probability Simple random sampling technique.

Reliability: Karl Pearson's correlation coefficient formula was used for estimation of reliability. The reliability coefficient 'r' of the structured questionnaire was 0.75 which is more than 0.7, hence it was found to be reliable.

Pilot Study: The pilot study was helped the researcher to Will visualize A percentage useful issues that Might a chance to be confronted same time directing the investigation Furthermore offered finer knowledge. about research methodology. No changes were done after pilot study.

Procedure of Data Collection: prior permission was taken from medical supperident of hospital at sangli distric. Researcher visited the hospital and selected the samples as per criteria. 30 minutes' pre-test was taken by structured questionnaire after informed consent. The 45 minutes structured teaching programme was given immediately after pre-test and 30 minutes' post-test were conducted after 7 days of structured teaching programme.

DISCUSSION AND RESULTS

Mean value of pre-test knowledge score is 12.78 and post-test knowledge score is 18.32. The calculated 't' value is –17.150 which is more than tabulated 't' value and calculated 'p' value is 0,000 which is less than tabulated 'p' value (0,05).This suggests that there is statistically significant increase in post-test knowledge score so structured teaching programme on selected psychiatric emergencies in among hospital staff nurses was effective. table shows that, there is no significant association between age in years, Gender, Educational Qualification, professional experience, Thus it shows that there is significant association between pre-test score and education those, who have Educational qualification 'A', have poor knowledge score with selected demographic variables.

CONCLUSION

The Analysis and interpretation done on 125 hospital staff nurses were Recurrence and rate conveyance accomplished for demographic variables. Adequacy from claiming arranged educating support might have been done Eventually Tom's perusing analysing's mean of pre-test and post-test knowledge score which indicated that the organized educating support might have been effective. and the association of selected demographic variables with knowledge score was done on calculated p value where it resulted that there was significant association between pre-test score and education those, who have Educational qualification 'A', have poor knowledge score with selected demographic variables.

Conflict of Interest: Nil

Source of Funding: Self-funding

Ethical Considerations: Ethical committee letter was submitted to the Bharati Vidyapeeth (to be Deemed) University, Pune and obtained permission from university to conduct the research. Permission from concerned authority and parent of each sample were obtained before data collection.

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Effectiveness of Leg Stretch Exercises on Level of Fatigue Among Patients Undergoing Hemodialysis

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ABSTRACT

The present study was conducted to assess the effectiveness of leg stretch exercises on level of fatigue among patients undergoing hemodialysis in selected hospitals. Quasi experimental research design was adopted for this study. The sample comprised of 150 patients who were undergoing hemodialysis which were equally divided into experimental and control group. Samples were selected using Non-probability purposive sampling technique. Patients undergoing hemodialysis were included in the study. Emergency hemodialysis patients, patients admitted in Intensive care units ,patients with femoral catheter, were excluded from the study. Data collection was done using rating scale which included never, Sometimes, Regularly, Often, Always.

Even though the study showed that there was significant difference in the level of fatigue after administering leg stretch exercises. Also the mean score of fatigue in experimental group showed reduction than the control group. So the researcher concluded the study that leg stretch exercises administration have positive effect on the level of fatigue.

Keywords: *Level of fatigue, leg stretch exercises, Hemodialysis.*

INTRODUCTION

Kidney is a basic important organ in the human body and it removes waste products and excess water from the blood. The kidney purifies 200 litres of blood every day and produces about two liters of urine. The waste products are produced from normal metabolic process which includes breakdown of many group of cells, foods , and other materials. A condition of a living animal body of its parts that impairs normal functioning and is typically manifested by distinguishing signs and symptoms known as disease.[1]

Major diseases of kidney is a problem for health of people and it affects to socio- economic status of people. Worldwide, 246 million people are suffering from diabetes and may increase upto 380 million in 2025. Diabetic nephropathy affects one of many people having diabetes and approximately 1.5 million people worldwide are kept alive by the procedure of dialysis.[3]

Diseases of kidney like ARF, CRF affects the quality of life of people. Chronic renal disease affects the renal function within several period of month or years.[2]

As renal function decreases, the disease completely reaches to end stage which may be life- threatening, so it may require renal replacement therapy, by hemodialysis or renal transplantation. Dialysis is a treatment of these patients which helps to remove wastes and extra fluid from the blood. Haemodialysis procedure removes all wastes and fluids by circulating blood outside the body through a filter, called a dialyzer, which consists of a semi-permeable membrane.[5,6]

Exercises are helps to improve mental and physical functioning of renal patients. There are various therapies to increase physical functioning of the these patient. Leg stretching exercises which were done during the dialysis procedure - knee strengthening exercise, which improves the synthesis of muscle protein and improves both strength and overall function of the body.[10,11]

Leg stretching practices decreases the blood pressure medicines if the patients are taking it frequently. Activities can make muscles and joints more adaptable, that implies it will be simpler for patients to achieve, and to do other every day exercises. Great adaptability can enhance the feeling of adjustment. Exercise is the best

choice which the patient can do without anyone else's input and can rest easily, and more control of wellbeing despite the fact that patient is on dialysis.[12]

Nurses, patients family and others health care providers share the interest in maximizing positive outcome of haemodialysis. This can be achieved by intervening the patients problems during the procedure.

In this study, the investigator is interested to elicit the effect of leg stretching exercises among patients undergoing hemodialysis.

MATERIAL AND METHOD

An experimental research design was adopted for this study. The study was in hemodialysis units of selected hospitals, Sangli city. The sample comprised of 75 patients in experimental and 75 patients in control group. Sample was selected using Non-probability purposive sampling technique. Data collection was done using Fatigue rating scale and data was analyzed using descriptive and inferential statistics.25 experts did the content validity of the tool. The experts were selected from various fields based on the topic.

PROCEDURE FOR DATA COLLECTION

After obtaining the necessary permissions from the concerned authorities and informed consent from the relatives and patients, the investigator collected necessary data.

The data collected in three phases.

Pre intervention phase: Phase I- Demographic data were collected from patients in the experimental and control group.

Intervention phase: Phase II- In experimental group, leg stretching exercises were given for 15 minutes during middle period of hemodialysis procedure for 3 cycles. In control group, no any interventions has been done.

Post intervention phase: Phase III: The level of fatigue was assessed with the help of fatigue rating scale in both experimental and control group.

DISCUSSION

This chapter includes discussion of the major findings of the study and reviews them in relation to the findings from other studies. The present study has been undertaken to evaluate the effectiveness of leg stretch exercises among patients undergoing haemodialysis

In this study, there was a significant difference between the fatigue scores in the experimental group before and after interventions. Joshwa et al reported fatigue in 75% of the patients on hemodialysis, in current study 62.7 % of the patients had experienced fatigue.

This study shows that there is significant change in level of fatigue among patients undergoing hemodialysis as the p- value is less than 0.05.

Also shows that there is significant difference among the parameters of A study done by Chang et al reported a significant difference in fatigue level after 8 weeks of exercise during hemodialysis, while current study was conducted within 3 cycles of hemodialysis of each patient in hemodialysis units of selected hospitals.

A finding of study shows that intervention of leg stretch exercises administration was significantly effective in reducing the level of fatigue among patients undergoing hemodilaysis as the level of fatigue is reduced more in experimental group than control group. And within the comparison, it was statistically found that there is highly significant difference among experimental group than in control group.

CONCLUSION

The study was aimed to assess the selected parameters before and after administering leg stretch exercises among patients undergoing hemodialysis. Quantitative research approach design used for this study. Total 150 patients are included , in that 75 in experimental and 75 in control group, who are undergoing hemodialysis in selected hemodialysis units of hospitals of Sangli city. Two group pretest post-test design used for study. To find out the study findings mean and standard deviation used for assessing the selected parameters and unpaired t-test used for assessing comparison of selected parameters between experimental and control group.

This study shows that there is no statistically significant difference among the parameters of physical fatigue that is discomfort, drowsiness, alteration in activities, and sleepiness, but there is no significant difference in weakness, while in mental fatigue, there is significant difference in alteration in concentration, feeling depressed, feeling of anxiousness and confusion, but there is no significant difference in irritation.

Therefore the study shows that leg stretch exercises are helpful to reduce the level of fatigue among patients undergoing hemodialysis.

Conflict of Interest: Nil

Source of Funding: Self funding

Ethical Consideration: Ethical committee letter were submitted to the Bharati vidyapeeth (to be Deemed) University, Pune and obtained permission from university to conduct the research. Permission from consent authority and patients undergoing hemodialysis were obtained before data collection.

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Effectiveness of Teaching Regarding Individualized Coping Strategy on Self-Esteem of Cancer Patients Undergoing Radiation Therapy in Selected Cancer Research Institute, Dehradun, Uttarakhand

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ABSTRACT

Introduction: Cancer is a major public health problem in developed and developing countries. The cancer diagnosis and its treatment process bring important changes to the way of living with physical and emotional changes due to discomfort, pain, deformity, dependence and loss of self-esteem.

Aim: To determine the effectiveness of teaching on self-esteem of cancer patients.

Method: A quantitative research approach with Time Series Design (one group pre-test post-test) was used. The study was conducted in Cancer Research Institute, Dehradun, Uttarakhand. Consecutive sampling technique was used to select the study subjects. Data was collected from 52 cancer patients by using Rosenberg Self-esteem Scale on 1st day, 7th day, 14th day and 21st day of Radiation therapy. Intervention, Teaching regarding Individualized coping strategy was given to them twice in a week for four weeks.

Results: Results revealed that there was a gradual increase in self-esteem mean from 1st day to 7th day to 14th day to 21st day with mean 16.48 ± 2.90, 16.48 ±3.10, 17.78±2.91 and 19.07± 2.38 and p value was .001 (<.05) which shows significant difference in self-esteem mean from 1st day to 21st day. At baseline assessment more than half of the participants (52.8%) were having low level of self-esteem. 45.3% participants was having moderate level of self-esteem. On 7th day, maximum (55.8%) participants were having moderate self-esteem. No participant was having high level of self-esteem. On 14th day, 69.2% participants were having moderate self-esteem. On 21st day, number of participants with moderate self-esteem increased to 92.3%. No participant was having high self-esteem. Statistically significant association was found between baseline self-esteem score and gender p value .002(<.05).

Conclusion: It was concluded that the teaching regarding Individualized coping strategy was significantly effective in improving self-esteem and quality of life of cancer patients undergoing radiation therapy.

Keywords: *Effectiveness, Individualized coping strategy, Self-esteem, Cancer patient, Radiation Therapy.*

INTRODUCTION

Cancer is a major public health problem in developed and developing countries, deserving increasingly more research in order to promote better quality and humanization of care to patients with this disease. It is estimated that by 2020, the number of new cases per year will be nearly 15 million, of which about 60% occur in developing countries.[1]

The cancer diagnosis brings important changes to the way of living with physical and emotional changes

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due to discomfort, pain, deformity, dependence and loss of self-esteem. It is common to associate the word "cancer" to a life threatening disease and consider it "morally contagious", even avoiding to pronounce its name. In addition, the patient must face the different types of treatment for the disease, such as surgeries, radiotherapy and chemotherapy treatments, frequently associated to adverse side effects.[2]

Research studies have demonstrated the strong link between feeling confident in appearance and self-esteem – never more evident than when facing the rigors of cancer treatment.[3]

Katz MR, Rodin G and Devins GM (1995) conducted a study in Toronto to examine the relationship between self-esteem and the psychosocial response to cancer by reviewing methodological issues associated with measuring self-esteem in patients with cancer and examine existing empirical studies in light of these issues and found that Self-esteem in cancer has been variously viewed as an outcome variable, a mediator of other psychosocial outcomes, and as a personal resource that facilitates coping. Unidimensional measures of global self-esteem have been most often employed in research studies, despite increasing recognition that self-esteem is multidimensional. Evaluation of global self-esteem has generally revealed no differences between cancer patients and controls. Aspects of multidimensional self-esteem, particularly body self-esteem, appear to be disturbed in many patients with cancer.[4]

Julie B. Schnur, Suzanne C. Ouellette, Dana H. Bovbjerg, and Guy HM (2006) conducted a qualitative study on 15 women with Stage 0-III breast cancer undergoing External-Beam Radiotherapy to develop an understanding of specific thoughts and feelings based on 180 diary entries and thematic analysis identified four primary participant concerns: (a) a preoccupation with time; (b) fantasies (both optimistic and pessimistic) about life following radiotherapy; (c) the toll their side-effect experience takes on their self-esteem; and (d) feeling mystified by radiotherapy. These themes are consistent with previous literature on illness and identity. These findings have implications for the treatment and care of women undergoing breast cancer radiotherapy.[5]

Yoo M. S., Lee. H. S, Yoon. J. A.(2011) conducted a study in Korea proved that the cognitive-behavioural intervention (2 hours per week), which included the counselling, education about treatment choices, possible side effects and the management strategies applied by nurses were effective to reduce anxiety and the depression among the cancer patients undergoing radiation therapy.[6]

Stiegelis. H. E. et al (2004) conducted a study in Netherlands among 209 cancer patients about the impact of informational self-management intervention on the association between control and illness, uncertainty psychological distress before and after radiation therapy. Prior to radiation therapy, 209 patients with cancer completed baseline measures, including control and illness uncertainty. After completing radiation therapy, patients were randomly allocated to receive either a booklet (experimental group n=103), or no booklet group (control group n=106). The booklet contained general information about cancer and cancer treatment, information about possible coping strategies and social comparison which included short stories of other patients, or no booklet group (control group n=106). Three month after intervention, aspects of psychological distress were assessed including anxiety, stress, anger, depression and fatigue. It was proved that informational self – management intervention (booklet) issue prior to radiation therapy reduced the anxiety level and strengthened the possible coping abilities.[7]

METHOD

Time Series Design was used to assess the effectiveness of Teaching regarding Individualized coping strategy on self-esteem and Quality of life of cancer patients.

Group	O1	X	X	O2	X	X	O3	X	X	O4
Cancer Patients	Day 1			Day 7			Day 14			Day 21

X- Teaching regarding individualized coping strategy

O_1- First Assessment (Baseline Assessment on 1st day of radiation therapy)

O_2- Second Assessment (7th day of radiation therapy)

O_3-Third Assessment (14th day of radiation therapy)

O_4- Fourth Assessment (21st day of radiation therapy)

SUBJECTS

This study was conducted in cancer research institute, Himalayan Hospital, Uttarakhand. Total 52 cancer patients who were undergoing radiation therapy, were recruited through consecutive sampling. All the subjects completed have completed all the four assessments. Only the patients who met the inclusion criteria and signed consent form were invited to participate in the study.

INSTRUMENTS

A set of questionnaires was used to obtain information from the subjects. It includes demographic performa for collecting demographic data and disease related information.

Rosenberg Self-esteem Scale was used to measure the self-esteem of cancer patients. It is a Standardized tool used to measure self-esteem of an individual. It is a 10-item scale that measures global self-worth by measuring both positive and negative feelings about the self. All items are answered using a 4-point Likert scale format ranging from strongly agree to strongly disagree.

INTERVENTION

Intervention-Teaching regarding Individualized Coping Strategy includes Health education regarding managing symptoms according to disease condition, rest, sleep and diet. It includes instructions regarding Relaxation Techniques for coping with fear and to relieve anxiety, instructions about importance of catharsis - to help in gaining family and social support and Positive problem solving.

DATA COLLECTION PROCEDURE

Investigator went to radiation unit daily and identified cancer patients undergoing radiation therapy. A total 52 cancer patients were taken in study who meet the inclusion criteria. Purpose of the study was explained and written consent was taken from the cancer patients undergoing radiation therapy. On the first day after making rapport with cancer patients undergoing radiation therapy, socio-demographic performa and Rosenberg Self-esteem Scale were filled by the cancer patients undergoing radiation therapy but not given any intervention. Intervention-Teaching regarding Individualized Coping Strategy was administered twice a week for six times to cancer

patients undergoing radiation therapy. Rosenberg Self-esteem Scale was administered to them to assess their quality of life and self-esteem on every seventh day. It was taken four times, on 1st day, 7th day, 14th day and 21st day of radiation therapy.

DATA ANALYSIS

Descriptive statistics including frequency and percentage were used to present subject's demographic information, disease related information and level of self-esteem. RMANOVA test was used to calculate quality of life and self-esteem score at different assessments. Chi-square test was used to find association between demographic variables and self-esteem score. $P < 0.05$ was deemed as the significant level.

RESULTS

Demographic characteristics of cancer patients are described in table 1 which shows that maximum (36.5%) of the participants were in the age group of 51 to 60 years. More than half (55.8%) of the participants were male. Most (92.3%) of the subjects were married and majority (94.2%) of the participants were having nuclear family. Maximum (25%) of the subjects were not having any formal education. Only 13.5% subjects were having graduate qualification. Majority (38.54%) of the subjects were having private job or self-employed. Majorities, 57.7% were belonged to rural area and same were non-vegetarian. More than half (55.8%) of the subjects were having tobacco or alcohol abuse. Table 2 shows that maximum (42.3%) of the participants were having cancer of head and neck. 28.9% of the subjects were having breast cancer. Majority (57%) of the subjects were having two to five months duration of illness.

Table 1: Demographic characteristics of cancer patients undergoing radiation therapy

N = 52

S. No.	Variable	Frequency (F)	Percentage (%)
1.	**Age (Years)**		
	31-40	10	19.2
	41-50	08	15.4
	51-60	19	36.5
	61-70	14	26.9
	71-80	01	1.9

Conted…

2.	Gender		
	Male	29	55.8
	Female	23	44.2
3.	**Marital Status**		
	Married	48	92.3
	Unmarried	01	1.9
	Widow/Widower	03	5.8
4.	**Type of Family**		
	Nuclear	49	94.2
	Joint	03	5.8
5.	**Educational Status**		
	No formal Education	13	25
	Upto Primary	10	19.2
	Upto Highschool	14	26.9
	Upto Intermediate	08	15.4
	Graduate and above	07	13.5
6.	**Occupation**		
	Govt. Job	13	25
	Pvt. Job/Self-employed	20	38.5
	Homemaker	19	19
7.	**Monthly Income (Rs.)**		
	>5000	01	1.9
	5001-10,000	13	25
	10,000-20,000	24	46.2
	>20,000	14	26.9
8.	**Residential Area**		
	Urban	22	42.3
	Rural	30	57.7

Conted…

9.	Dietary Pattern		
	Non-vegetarian	30	57.7
	Vegetarian	22	42.3
10.	**Social Habits**		
	No abuse	23	44.2
	Alcohol/Tobacco use	29	55.8

Table 2: Frequency and percentage of disease related variables

N = 52

S. No.	Variables	Frequency (F)	Percentage (%)
1.	**Site of Cancer**		
	Head and Neck	22	42.3
	Breast	14	26.9
	Cervix	07	13.5
	Lung	05	9.6
	Oesophagus	04	7.7
2.	**Duration of Illness**		
	2-5 months	30	57.7
	6-9 months	22	42.3

Table 3 shows that at baseline assessment more than half of the participants (52.8%) were having low level of self-esteem. 45.3% participants was having moderate level of self-esteem. No participant was having high level of self-esteem. On 7th day, maximum (55.8%) participants were having moderate self-esteem. On 14th day, 69.2% participants were having moderate self-esteem. On 21st day, number of participants with moderate self-esteem increased to 92.3%. No participant was having high self-esteem.

Table 3: Frequency and percentage of cancer patients undergoing radiation therapy on the basis of level of Self-esteem at various time assessments

N = 52

S. No.	Self-Esteem	1st Day Assessment		7th Day Assessment		14th Day Assessment		21st Day Assessment	
		F	P (%)	F	P (%)	F	P (%)	F	P (%)
1.	Low (Below 15)	28	52.8	23	44.2	16	30.8	4	7.7
2.	Moderate(15- 25)	24	45.3	29	55.8	36	69.2	4800	92.3
3.	High (Above 25)	00		00		00			

Table 4 reveals that there is a gradual increase in self-esteem mean from 1st day to 7th day to 14th day to 21st day with mean 16.48 ± 2.90, 16.48 ± 3.10, 17.78 ± 2.91 and 19.07 ± 2.38 and within the group p value was .000 (<.05) which shows significant difference in self-esteem mean from 1st day to 21st day.

Table 4: Mean Self-esteem score of cancer patients undergoing radiation therapy at various assessments

N = 52

Variable	Baseline(1ˢᵗ day of RT) Mean ± SD	7ᵗʰ day of RT Mean ± SD	14ᵗʰ day of RT Mean ± SD	21ˢᵗ day of RT Mean ± SD	p value
Self-esteem	16.48 ± 2.90	16.84 ± 3.10	17.78 ± 2.97	19.07 ± 2.38	.001

$P < 0.05$

Table 5 shows association between self-esteem and various demographic variables. There was statistically significant association between baseline self-esteem score and gender as calculated Chi-square value(9.892) is more than table chi-square value (3.814) at df 1 with p value .002(<.05). No association was found between self-esteem and other demographic variables like age, residential area, duration of illness, dietary pattern, social habits, and monthly income.

Table 5: Association between socio-demographic variables and self-esteem of cancer patients undergoing radiation therapy

N = 52

S. No.	Variable	Low Self-Esteem	Moderate Self-Esteem	X² Value	df	p value
1.	**Age (Years)**					
	30-55	15	13	.002	1	.966
	56-80	13	11			
2.	**Gender**					
	Male	10	19	9.892	1	.002*
	Female	18	05			
3.	**Residential Area**					
	Urban	10	06	1.081	1	.299
	Rural	18	18			
4.	**Duration of Illness**					
	2-5 months	19	11	2.568	1	.109
	6-9 months	09	13			
5.	**Dietary Pattern**					
	Non-vegetarian	17	13	.227	1	.634
	Vegetarian	11	11			
6.	**Social Habits**					
	No Abuse	09	14	3.594	1	.058
	Alcohol/tobacco use	19	10			
7.	**Monthly Income (Rs)**					
	5,000-15,000	10	06	.696	1	.404
	16,000-30,000	18	18			

$x^2 = 3.814$ at df = 1, $p < 0.05$, $x^2 = 5.99$ at df = 2, $p < 0.05$

Table 6 shows that there was significant increase in Quality of life – GHS score (.001). On functional scale, there is significant improvement in physical functioning (.001), Role functioning (.001), Emotional functioning (.001), cognitive functioning (.004), and social functioning (.016). On symptom scale, there was significant improvement in Fatigue (.001), Pain (.001), Nausea and vomiting (.001), Dyspnoea (.001), Sleep (.001), Appetite (.001), Constipation (.001) and Financial Difficulties (.001).

DISCUSSION

The study has been done to determine the effectiveness of teaching regarding individualized coping strategy on self-esteem and quality of life. Findings of the present study showed more than half (55.8%)of the participants were male. Most (92.3%)of the subjects were married. Maximum (36.5%) of the participants were belonged to age group of 51 to 60 years. Majorities, 57.7% were belong to rural area and same were non-vegetarian. More than half (55.8%) of the subjects were having history of tobacco or alcohol abuse. Findings of the study showed that maximum 23(42.3%) of the subjects were having cancer of head and neck. 28.9% of the subjects were having breast cancer. Majority of the subjects that 57% of subjects were having 2 to 5 months duration of illness.

The intervention-teaching regarding individualized coping strategy has been significantly effective in improving the self-esteem of cancer patients undergoing radiation therapy as there was a gradual increase in self-esteem from 1st day to 21st day and within the group p value was .001 (<.05) which shows significant difference in self-esteem mean score from 1st day to 21st day. As far as the socio-demographic factors are concerned, it was found that gender was significantly associated with self-esteem of cancer patients undergoing radiation therapy as the men are having higher level of self-esteem than women.

The findings of the study were consistent with the study conducted by Anjana Bhattacharya to compare self-concept of cancer patients. Study carried out on 100 cancer patients, 50 were male and rest were female. Result showed that male and female cancer patients differed with t value 2.51, significantly at 0.01 level of significance in respect to their self-concept.

CONCLUSION

Based on the findings of the study, it was concluded that the teaching regarding Individualized coping strategy was significantly effective in improving self-esteem and quality of life of cancer patients undergoing radiation therapy.

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Knowledge Regarding Adverse Effect of Alcoholism among Adolescents

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ABSTRACT

A Non experimental descriptive approach was used for this study. Objectives are to assess the knowledge regarding the adverse effect of alcoholism among adolescents and to find out the association between the level of knowledge with selected demographic variables. The study was carried out in Panchayat Union Middle School, Pallipattu at Vaniyambadi. The sample comprised of 60 adolescents studying in 6th to 8th standard, selected by convenience sampling technique. A total of 60 students selected for the study by using structured knowledge questionnaire. The result of this study showed that students having 53.3% average knowledge regarding adverse effect of alcoholism and no significant association was found between demographic variables and knowledge level. The findings of this study helps to aware about adolescent knowledge regarding adverse effect of alcoholism.

Keywords: *Substance abuse, Adolescents, Adverse effect.*

INTRODUCTION

Adolescence (from Latin *adolescere*, meaning "to grow up") is a transitional stage of physical and psychological human development that generally occurs during the period from puberty to legal adulthood.

Alcoholism is a primary, chronic disease with genetic, psychological, and environmental factors influencing its development and manifestations. This disease is often progressive and fatal. It is characterized by continuous or periodic: impaired control over drinking, preoccupation with the drug alcohol, use of alcohol despite adverse consequences, and distortions in thinking, most notably denial.[1]

DSM-IV-TR defines alcohol abuse or alcohol dependence is diagnosed as a need for daily usage of large amount of alcohol for adequate functioning. The drinking patterns are often associated with certain behaviors :a) the inability to cut down or stop drinking; b) social occupational activities are given up or reduced because of alcohol abuse ,c) tolerance: a need for markedly increased amount if the alcohol to achieve the desired effects .d) Withdrawal- symptoms such as insomnia, nausea vomiting, hallucinations, anxiety, psychomotor agitation, anxiety, grand mal seizures, increased hand tremor, autonomic hyper activity after the cessation or reduction of alcohol use that has been heavy and prolonged ,e) a great deal of time spent in activities necessary to obtain alcohol.[2]

Many adolescents today have problems and are getting into trouble. After all, there are a lot of pressures for kids to deal with among friends and family. For some youth, pressures include poverty, violence, parental problems, and gangs. Any number of isolated behavior problems can represent adolescent problems and delinquency-shoplifting, truancy, a fight in school, drug or alcohol ingestion. Sometimes, kids can't easily explain why they act the way they do.[3]

Alcohol use and heavy drinking are common during adolescence and young adulthood, although the minimum legal drinking age across the United States is 21 years. Some individuals may start hazardous alcohol consumption earlier in childhood.[4]

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When compared with use by adults, alcohol use by adolescents is much more likely to be episodic (binge) and heavy, which makes alcohol use by those in this age group particularly dangerous. Rapid binge-drinking, possibly related to a bet or dare, puts the teenager at even higher risk of alcohol overdose or alcohol poisoning, in which suppression of the gag reflex and respiratory drive can fatal.[5]

Nearly 50 percent of adolescents have had at least one drink and over 20 percent report having been "drunk". Approximately 20 percent of 8th graders and almost 50 percent of 12th graders have consumed alcohol within the past 30 days. Among 12th graders, almost 30 percent report drinking on 3 or more occasions per month. Approximately 30 percent of 12th graders engage in heavy episodic drinking, now popularly termed "binge" drinking—that is, having at least five or more drinks on one occasion within the past 2 weeks—and it is estimated that 20 percent do so on more than one occasion.[6]

A study was conducted on knowledge and attitude towards alcoholism among 200 high school students of age 12-16 in Mangalore Taluk, selected by random sampling technique .The findings of the study revealed that majority of students 83(41.5%) had favorable attitude toward alcoholism.[7]

The effects of alcohol and other drugs on the adolescent brain are probably multiple, because the immaturity or plasticity of the brain developmental processes likely confers greater vulnerability to both the toxic and the addictive actions of drugs, and drug use itself may directly affect brain development. The use of alcohol and drugs during early adolescence, coupled with genetic predisposition to substance abuse and addiction, may increase the magnitude of risk-taking during adolescence. Adolescence abuse in alcohol tends to be aggressive. It has led to increase in crime rate.[8]

Alcohol prevalence in the country is growing in alarming rate, which accounts one of the major cause of mortality and morbidity and also a noticed a significant lowering of age at initiation of drinking .Underage alcohol use is more likely to kill young people than all illegal drugs combined .Some of the most serious and widespread alcohol–related problems among adolescents are drinking and driving, suicide, sexual assault, high–risk sex, future use disorder.[8]

Alcohol dependence among students of school and colleges are serious problem because of their lack of knowledge regarding adverse effect of alcohol.

Statement of the problem: A study to assess the knowledge regarding adverse effect of alcoholism among adolescents in Panchayat Union Middle School, Pallipattu at Vaniyambadi.

OBJECTIVES

1. To assess the level of knowledge regarding adverse effect of alcoholism.

2. To find out the association between the level of knowledge with selected demographic variables.

Assumption: Adolescents will have some knowledge regarding the adverse effect of alcoholism.

MATERIALS AND METHOD

(a) **Research approach:** Non-experimental approach.

(b) **Research design:** Descriptive research design.

(c) **Sample size:** 60 students

(d) **Sampling technique:** Simple random sampling (lottery method).

(e) **Tools:** Socio-demographic variables, knowledge assessment questionnaire.

(f) **Inclusion criteria:**

- Adolescents studying in Panchayat Union Middle School, Pallipattu at Vaniyambadi.

- Adolescents who can write and read Tamil.

- Adolescents who are present at the time of study

(g) **Exclusion criteria:**

- Student studying above the age limit of 11-14 years.

- Not willing to participate.

FINDINGS

Table 1: Description of socio demographic variables of the adolescents

n = 60

Socio demographic variables	Category	Frequency	Percentage (%)
Age in years	11-12	34	56.6%
	13-14	26	43.3%
Sex	Male	33	55%
	Female	27	45%
Type of family	Nuclear	14	23.3%
	Joint	46	76.6%
Monthly income (in rupees)	<5000	22	36.6%
	5001-10000	26	43.3%
	10001 and above	12	20%
Occupation of parents	Business	7	11.6%
	Private	18	30%
	Government	12	20%
	Daily wages	23	38.3%

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Habits of family members	Alcoholism	24	40%
	Smoking & tobacco	18	30%
	Nil	18	30%
Habit of themselves	Alcoholism	0	0%
	Others	0	0%

Table 1 shows that the description of the socio demographic variables. In this study 56.6% of the subjects were in the age group of 11-12 years and 43.3% were 13-14 years. Majority (55%) of them were males and 45% of them were females. Highest percentage (76.6%) were joint family and 23.3% were nuclear family. In monthly income 43.3% of them were 5001-10000/- and 20% of them were above 10001/-. 38.3% of subjects parents were daily wages and 11.6% of them were business. Among 40% if the parents were having alcoholism and 30 % of them no habits. None of the subjects were having habit of alcoholism.

Table 2: Knowledge on adverse effect of alcoholism on adolescents

n = 60

Knowledge Level	Category	Assessment	
		Frequency	Percentage
Poor	0-34	22	36.6%
Average	35-67	32	53.3%
Good	68-100	6	10%
Total		60	100%

Table 2: The data reveals that adolescents have 36.6% of poor knowledge level, 53.3% of average knowledge level and 10% of good knowledge level regarding adverse effect of alcoholism.

CONCLUSION

Alcoholism is considered to be the most serious problem facing the country because it affects abusers, their families and the society as a whole. Alcohol reduces life expectancy the earlier people begin drinking heavily, the greater their chance of developing serious illnesses later on. Alcoholism damages body tissues by irritating them directly, through changes that occurs during its metabolism.

Prevention is better than cure, and this is very much true in alcohol abuse. The personality of youth is shaped as he passes through the portals of school and colleges. It needed health workers and teachers to strive for preventing and controlling of alcohol abuse among adolescents.

This study will help to know about the knowledge on alcoholism in the areas concerned.

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Learning Style(S) Preferences and the Perception of the Learner's Learning Style with Academic Performance of Nursing Students in a Private University, Oman

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ABSTRACT

Every student has a different learning style preference. Nurse educators face lot of challenges to teach complex issues in clinical and theoretical settings. Nurse teachers are expected to use instructional strategies which facilitate learning process. An understanding of the learning styles and preferences helps to incorporate preferred methods and to make the teaching learning process more effective.

Aims: The aims/objectives of this study were to explore the different learning styles among the Nursing students who were enrolled in the selected courses and to explain the relationship between the students' learning styles with the academic performances.

Methodology: A cross sectional, explorative survey design was utilized to assess the learning style of nursing students. The VARK (Visual, auditory, read and write, kinesthetic) model by Neil Fleming was used to determine the learning style of students. A total of 140 students across all semesters were the participants of this study.

Results: The findings of this study show that nursing students had diverse learning styles including bimodal, tri-modal and multimodal preferences. The analysis reported that there exists no significant difference in CGPA (Cumulative Grade Point Average) based on learning styles. However Learner with K (Kinesthetic) – Single Mode Learning style had a high CGPA Score.

Conclusion: This research has given the researchers an insight into the different learning styles of nursing students and it would help the faculty to encourage students to utilize the individual, self-directed learning style to gain maximum benefits.

Keywords: *learning styles, preferred learning methods, VARK model, nursing students learning methods, teaching and learning methods.*

INTRODUCTION

Learning is defined as behavioral change[1]. Learning is defined in various ways based on perceived experience or processing of contents learned. Learning takes place in an individual's life in different situations through disparate learning styles. This learning experience transforms one's life to have new approaches, creating new theories, philosophies, meta-cognition and brings positive changes in the society[2]. The learning model described by Kolb points out learning as an uninterrupted series which starts with experience continued by reflection leading to action and thus it gives a specific experience for reflection[3]. Pupils follow and adapt divergent learning style and prefer according to the way each one think, perceive and interact and react to the learning environment[4]. A cross sectional survey done among Saudi nursing students reported that the learning styles of Saudi nursing students were same as that of nurses from other places and they preferred the kinesthetic learning style[5].

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Significance and Background of the study: In Oman, the nursing students enter in to professional courses after they complete the higher secondary school education. In schools, the learning styles of students are mainly traditional method which supports more of memorization. As per the University policy the students are expected to register for foundation courses in Mathematics and foreign languages like German, English. As investigators of this project we felt their learning levels in the Foundation courses are didactic. Since learning style can change during the course of education the nurse educators should be cautious of the student learning styles and preferences in order to choose the appropriate teaching style and to prepare the nursing students to be an efficient, effective and critical thinker in the clinical area. Interpreting the learning styles of students will guide the nurse educators, to make their teaching learning process more efficient. The student may lose his/her interest in learning when the learning style does not match with the teaching styles. Specifically, the proposed research is based on the notion that since learning is driven by internal motivation. Hence the current research has been conducted to identify the preferred learning styles and its relationship with the academic performance of nursing students. This study will contribute robust evidence on the preferred learning style of Arab nursing students in the Region of Sultanate of Oman.

OBJECTIVES

The main objectives of the study were to:

1. Explore the different learning styles among the Nursing students who are enrolled in the selected courses and year

2. Explain the relationship between the students' learning styles with the academic performances

RESEARCH DESIGN

The cross sectional, explorative survey design was used to assess the student's learning styles, preferred teaching methods and its relationship with academic performance. This observational study design helped to find out the preferred learning style of nursing students and its relationship with the academic performance of students in terms of increase in the CGPA.

Setting of the Study: This study was done in University of Buraimi which is located in Al Buraimi, Sultanate of

Oman. This university has a dynamic student population from various professional backgrounds including Health sciences, Engineering, Law and Business administration. The nursing program from where participants were selected belonged to the College of Health Sciences.

Sampling: Non-probability stratified quota sampling technique was utilized in this study. Among the many courses at each academic year the students who were enrolled in the selected courses in year of the nursing program were included in this research. A total of 140 students were the study participants. Nursing students, according to the inclusion criteria from each semester were included in this research as a study participant.

Exclusion Criteria: Students who are not registered in the courses mentioned in the inclusion criteria Student can participate only once, even if he/she has registered in selected multiple courses.

Description of Tools:

A. **Demographic data:** information regarding the age, gender, grades at school, region of origin of students, current dwelling place of nursing students, Current CGPA were collected.

B. **Academic performances:** The Academic achievement of the students was measured using the CGPA of the current academic semester and as per the university grading system.

C. **VARK learning style inventory tool:** The learning style of the students was assessed using the ' VARK learning style inventory tool, version 7.0 , introduced by Fleming which assessed the learning in terms of sensory modalities: Visual (V), auditory (A), read and write(R), Kinesthetic (K).This instrument assessed whether the learners were uni-modal, bimodal, tri modal or multi modal learners. The VARK standard tool consists of 16 multiple choice questions. The participant can choose more than one answer for each question or they can leave it blank if does not match with the learning style. The score was interpreted according to the VARK score guideline. (Attached In Appendix) The Arabic version 7.0 was used in this research.

Data Collection Procedure: This study was done in the 15th week of the spring semester 2017. After the stratified sampling procedure from 1st to the 4th year and internship cohorts, the participants were given a brief

description about the study and its benefits to them. An informed consent from students was obtained .The VARK questionnaire was distributed to the students with adequate explanation. This took 15-20 minutes to complete the tool.

Ethical Considerations: Approval from research and ethics committee of college of health sciences, University of Buraimi was obtained. Informed consent from individual participants was obtained before the start of data collection. Students were explained that they could withdraw from the study at any point of time.

DATA ANALYSIS

The data was analyzed using SPSS 24 Version. Descriptive statistics was used to describe the demographic variables. A total of 140 students were the study participants. Due to missing data a total of 137 were included in the analysis. The Chi square test, ANOVA and correlation tests were used to find association between the learning style and academic grades.

RESULTS OF THE STUDY

The results are discussed based on the objectives of the study. A total of 140 students participated in the study; since 3 data were found to have missing elements only 137 student's data were analyzed. The first objective was to explore the different learning styles among the Nursing students who are enrolled in the selected courses and year.

Sociodemographic Data of Paticipants: The majority of participants in the study were female students (96.4%) and only 3.6% were male students. It is a well understood fact nursing is a female dominated profession and hence every cohort has very less male students getting registered into the nursing program. The academic level of participants shows that the internship students (Level 5-fifth year) were more in number with

25.5% as study participants. Following this first year and second year with 21.2%, third year with 17.5% and fourth year with 14.6% were included as participants in this study. The distribution of study participants from schools (where they studied before they entered nursing program) showed that majority of students (98.5%) were from public school. Majority of students (61.3%) came from Al Batinah region to study nursing in this private University. The current dwelling place of study participants showed that Majority of participants (46.7%) stayed in University of Buraimi hostel, 38.7% of study participants stayed in private hostels and 12.4% lived in their homes and a very minimal percent (2.2) stayed in their relative's house.

Level of Nursing Students: The level of learning of students showed that majority of students (63.5%) had bimodal way of studying (either combined with audio, and visual or read and write method or with kinesthetic method). The type of learning style based on VARK model, revealed 31.6% of students had audio learning style, 26.3% had kinesthetic type (learning by doing and simulation practice), 21.1% had Read and write type of learning style and 21.1% had visual learning style. Only the internship students had all 4 learning styles, the first year and second year students did have visual, read and write and kinesthetic learning styles respectively. The academic level and combination of learning styles analysis showed all nursing students except fifth year (internship) had single, bimodal and trimodal style of learning. Whereas the internship students had multimodal learning styles revealing they did have combination of all visual, auditory, read and write as well as kinesthetic learning styles. The Chi-square analysis showed that there is no association between Academic Level and Level of Learning.

The second objective was to explain the relationship between the students' learning styles with the academic performances.

Table 1: Correlations- learning styles and CGPA

Correlations						
		current CGPA	Learning Style in Percentage-V	Learning Style in Percentage-A	Learning Style in Percentage-R	Learning Style in Percentage-K
current CGPA	Pearson Correlation	1				

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Learning Style in Percentage-V	Pearson Correlation	-.025	1			
Learning Style in Percentage-A	Pearson Correlation	-.044	-.359**	1		
Learning Style in Percentage-R	Pearson Correlation	-.035	-.267**	-.269**	1	-.449**
Learning Style in Percentage-K	Pearson Correlation	.095	-.323**	-.328**	-.449**	1

**. Correlation is significant at the 0.01 level (2-tailed).

Table 2: CGPA & Learning styles of nursing students

Descriptives								
Current CGPA	**N**	**Mean**	**Std. Deviation**	**Std. Error**	**95% Confidence Interval for Mean**		**Minimum**	**Maximum**
					Lower Bound	**Upper Bound**		
SINGLE	15	8.0167	19.75712	5.10127	-2.9245	18.9578	1.76	79.40
BIMODAL	87	2.8536	.57216	.06134	2.7316	2.9755	.90	3.85
TRIMODAL	32	2.7788	.63371	.11202	2.5503	3.0072	.81	3.76
MULTIMODAL	3	3.3367	.11846	.06839	3.0424	3.6309	3.20	3.41
Total	137	3.4120	6.56611	.56098	2.3026	4.5213	.81	79.40

Table 3: Current CGPA and learning styles

ANOVA					
Current CGPA	**Sum of Squares**	**Df**	**Mean Square**	**F**	**Sig.**
Between Groups	358.025	3	119.342	2.883	.038
Within Groups	5505.444	133	41.394		
Total	5863.469	136			

The correlation analysis showed that there was a significant correlation at 0.01 levels between the learning style and the CGPA of the nursing student, where Learner with K (Kinesthetic) – Single Mode Learning style had a high CGPA Score. The analysis of the learning styles of nursing students and their relationship with CGPA showed that the students with a single style of learning had high CGPA. The ANOVA analysis revealed that there exist significant differences in CGPA based on Levels of Learning. Learners with Single mode learning indicated a high CGPA. However the Single mode learning preferences is found comparatively lesser.

DISCUSSION

The present research examined the preferred learning style of nursing students and its association with their academic grades. As nurse educators it is important that they be conscious about learning patterns of nursing students and adopt appropriate teaching methods to make the learning process successful direct life-long learning. The findings of the study are consistent with many other studies done worldwide. The findings from a study which assessed the learning style differences between the first year nursing students and midwifery students proved that 45% of students remained in the same mode and 30% of students changed their learning style to multimodal and 19% had a complete change of their learning style[6]. The findings from this current study showed that students had followed a (Kinesthetic) K type of learning style which is suitable for practicing nursing skills and the students of the fifth year (the internship) was found to have this type of learning style. Whereas the first year, second year and third year students had a Bimodal learning style with a combination of visual, auditory or read and write

method. The fourth year students in this study did have a transition to multimodal study. The learning preferences of Jordanian nursing students reported that students with multimodal learning style have the preference towards the kinesthetic style[7]. This study supports the current study findings as the fourth year nursing students adopt the multimodal style and internship students prefer kinesthetic style of learning. Similarly a longitudinal study which assessed the learning style of undergraduate nursing students reported that in the first year of study the common learning style identified was dual strategy, meanwhile the final year students did not have any influential learning style. This study supports the statement that learning style of nursing students is diverse[8]. The current study findings students from first year to the third year did not have any single style to their possession as they had bimodal and tri-modal learning styles identified. The relationship between the learning style and academic performance among Saudi nursing students was investigated and the results indicated that 76.9% had visual learning style followed by audio learning style by 50%. The same study reported that there was no association between the individual learning style and their academic performance[9]. The current study findings show that nursing students (internship students) with a single mode K (Kinesthetic) had a higher Cumulative grade point average (CGPA) than the other students. This finding may be due to the fact that the internship students are already into their practice of clinical skills which (is Kinesthetic in nature) supports the K learning style as preferred learning and brings in higher CGPA than students in other semesters. Moreover the mature students are expected to have personalized and self-directed learning and prefer active learning which is closely related to K-learning style. It is to be understood that if students learning according to their preferred learning style this can lead to better academic performance. Hence it can be agreed that the internship students preferred the Kinesthetic learning style and had higher CGPA than other students.

CONCLUSION

On the whole the study results reveal that nursing students learning style varies and is divergent. The results indicated that there exists no significant difference in CGPA based on learning styles. However Learner with K (Kinesthetic) – Single Mode Learning style had a high CGPA Score. This research encourages other faculties in nursing to study and understand the learning style of nursing students from the entry level until the internship level and adopt the preferred teaching methods which make the teaching learning process more effective.

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Effectiveness of Leadership Capacity in Delivering Simulation Education: A Cataylst for Change in Nursing

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ABSTRACT

Background: Past studies have revealed high fidelity simulations to be effective. However, factors that influence leadership capacity to promulgate successful simulation training have yet to be explored comprehensively.

Method: A nonexperimental, cross-sectional comparative analysis was utilized. A sample of 115 nursing faculty completed a two-section questionnaire.

Results: Faculty ability to relay clear communication and learning objectives as well as their assessment of students' acquisition of simulation training were found to possess a statistically significant outcome on simulation effectiveness.

Conclusions: Ensuring continued progress in simulation education require those within leadership capacities to address the present design of simulation-learning environments.

Keywords: Simulation, Nursing Leadership, Nurse Faculty, Simulation Competency, Best Practices

INTRODUCTION

There has been much controversy surrounding nursing simulation and its effectiveness on nursing education. This is mostly due to the lack of homogeneity in relation to what is measured and how the analysis is interpreted.[1] However**,** due to the potential implications of learning and its subsequent effect on nursing education and the nursing profession as a whole**,** many argue that high fidelity simulations must be considered when developing the curricula. Curl, in her latest publication, argues that not only are high fidelity simulations effective but if done correctly have the potential to replace clinical experiences by up to fifty percent.[2] According to Gaba (2004) "Simulation is a technique, not a technology, to replace or amplify real experiences with guided experiences, often immersive in nature, that evoke or replicate substantial aspects of the real world in a fully interactive fashion" (p. i2). Nevertheless, providing students with standardized simulation clinical education is a fundamental change requirement in clinical education that allows the nursing students to assess, intervene in and re-evaluate client's condition and response to treatment.[3-5] Additionally, successful simulation requires planning and effective leadership capacity.

Brewer (2011) concluded there was need for more studies to demonstrate the importance of using simulation in nursing education and its impact on student outcomes, despite the difficulty of doing so. Such further study is necessary in Saudi Arabia.[6] When developing

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curriculums, the pedagogy related to nursing simulation becomes of paramount importance. With many countries contributing to the refined outcomes of nursing education, the industry creates a multifaceted approach therefore developing other outcomes in the world over. In Kelly's Paper Titled *Simulation in Nursing Education- International Perspectives and Contemporary Scope of Practice*, she argues that the international study of these practices "benefit(s) student's performance in subsequent clinical practice" further developing the student's skill set.[7] This not only has implications for each program benefiting from their own changes but the entire profession of nursing education as a whole. Limitations of high fidelity simulation are further exacerbated when establishing criteria for simulation based examinations. Not only are situations made more complex but leadership's role in the learning experience is even further relied upon, thus citing a greater need for processes and strategies interdepartmentally. This creates the need for "rigorous preparation in advance, training and retention of proficient personnel, and reliable student assessments" in addition to "immediate and supportive debriefing" from the professor to the student and vice versa.[8] Some studies reported that simulation helped in fundamental and advanced courses.[9-11] Unfortunately, Nehring (2010) found only three studies that examined skill performance and competence, as depicted in 13 reviewed studies, all in developed countries and none in Saudi Arabia.[12] None of these studies examine role of leadership in advance simulation education. Furthermore, none literature retrieved related to Saudi Arabia leadership role of simulation in nursing education. Enhancing leadership capacity will promote health provider advancement in simulation education and practice. The study's research questions are:

1. What factors support faculty as leaders to provide effective leadership capacity to advance simulation education?

2. What best practices are being used nationally and internationally in simulation education?

METHODOLOGY/PROCEDURES

Design & Setting: This study had a nonexperimental, cross-sectional comparative design.[13] The study was conducted in an undergraduate nursing program in two nursing schools affiliated with universities in two different countries, namely Saudi Arabia and Canada. Each nursing program provided simulation training and is a baccalaureate nursing program.

Sample and participant: The study consisted of nursing faculties in both nursing programs. Non-probability sample for faculty was utilized. The target population was nursing faculty in both nursing programs in the King Saud University College of Nursing (KSU) and University of Ottawa (UOttawa) School of Nursing. A total number of faculty participants were 115 nursing faculty, 6 from The UOttawa and 109 from KSU. The eligibility criteria of the faculty nurses were that they were full-time or part-time who prepared, taught, and had at least one simulation experience.

Measurement: This study employed a faculty survey, developed and designed by Kelly Sausan in 2014. The survey conveyed nursing faculty perceptions of high-fidelity simulation using the Likert scale format. The scale for the survey had four response options: disagree, somewhat disagree, somewhat agree, and agree. The survey was developed by the researcher after extensive literature review.[14] It is consisted of two sections, 12 question related to faculty characteristics and 12 questions focused on student learning, objectives, and faculty knowledge in simulation.

Data analyses: The data entry and analysis were performed using SPSS software package. A comparison test was applied along with parametric and nonparametric statistics. Data was examined using analysis of variance (ANOVA). In addition, Kruskal-Wallis tests, t-tests, and linear regression were employed to adjust for sample size differences.

RESULTS

Descriptive statistics is depicted in Table 1. We found that compared to their counterparts, KSU posted lower rates than UofOttawa in both the categories of "Continuing education course on simulation" and undertaking an "Evaluation or student assessment course". King Riyadh's University percentage for both categories were (48.6%) and (39.4%), while Ottawa's University faculty surpassed with (50%) for both categories. In regards to simulation topics, over one third (37.6%) of KSU nursing faculty reported that debriefing students after a scenario was the most enjoyable aspect of the simulation development follow up with (35.8%) for "Evaluating students". Compared to the above, members from Ottawa's nursing faculty indicated divergently by reporting that all three categories: "Developing

simulation scenarios", "Evaluating students/grading simulations", and "Debriefing students after a scenario" were all equally enjoyable aspects of the simulation development.

Table 1: Descriptive Statistics of Nursing Faculty

Category	Frequency		Percent	
	Riyadh, KSU	Ottawa, CA	Riyadh, KSU	Ottawa, CA
Gender				
Male	45	0	41.3	0.0
Female	64	6	58.7	100.0
Highest degree				
Bachelors	18	4	16.5	66.7
Masters	45	2	41.3	33.3
Doctorate	46	0	100%	0.0
Age				
< 30 years	22	2	20.2	33.3
30-39 years	40	1	36.7	16.7
40-49 years	31	1	28.4	16.7
50-59 years	14	2	12.8	33.3
60 years or more	2	0	1.8	0.0
Teaching experience				
< 1 year	9	1	8.3	16.7
10 years or more	41	2	37.6	33.3
1-5 years	42	3	38.5	50.0
More than 5 years but less than 10	17	0	15.6	0.0
Evaluation or Student Assessment course				
Yes	43	3	39.4	50.0
No	66	3	60.6	50.0
Continuing education course on simulation				
Yes	53	3	48.6	50.0
No	56	3	51.4	50.0
Faculty development course on simulation topics of interest				
Learning how to properly utilize the technology	14	0	12.8	0.0

Conted…

Developing simulation scenarios	15	2	13.8	33.3
Evaluating students (grading simulation)	39	2	35.8	33.3
Debriefing students after a scenario	41	2	37.6	33.3
Faculty development course on simulation topics of least interest				
Debriefing students after a scenario	33	2	30.3	33.3
Evaluating students (grading simulation)	29	1	26.6	16.7
Learning how to proper utilize the technology	17	1	15.6	16.7
Developing simulation scenarios	30	2	27.5	33.3

Faculty perception regarding student learning, simulation objectives, and faculty knowledge were gaged and conveyed in Table 2. When surveyed on the topic of faculty knowledge, members of both universities attested to their capabilities to effectively execute tasks such as to "support a safe learning environment which advocated learning", "provide constructive feedback", "assess students' acquisition of knowledge and skills", "model professional integrity", "clearly communicate the objective and expected outcomes to participants of the simulation process", and "instill students with the confidence to approach the simulation experience as a serious evaluation of their abilities". However, out of all six faculty components, only three possessed statistical significance. 1) Faculty clearly communicated the objectives, 2) Faculty members were able to assess the students'' acquisition of knowledge and skills and 3) The students approached the simulation experience as a serious evaluation of their abilities. When asked about their responses to student learning and simulation objectives within the six categories, faculty responses did not possess any statistical difference.

Table 2: Difference between King Saudi University Faculty and University of Ottawa Faculty n = 115

	Sum of Squares	F	P-Value
Best Practices of High-Fidelity			
The faculty supported a safe learning environment that advocated active learning.	0.00	0.00	0.99
The faculty clearly communicated the objectives and expected outcomes to the participants of the simulation scenarios.	2.49	7.03	0.01
The faculty provided constructive feedback and discussion after the simulation scenarios.	0.04	0.08	0.78
The instructor modeled professional integrity during the individual scenario.	0.01	0.01	0.91
The faculty member was able to assess the students' acquisition of knowledge and skills during the individual scenario.	2.56	6.88	0.01
The students approached the simulation experience as a serious evaluation of their abilities.	1.40	3.12	0.08
Student competency			
The knowledge gained through the simulation experience can be transferred to the clinical setting.	0.52	1.82	0.18
The full 8-hour day performing simulation scares promote better learning outcomes for students than an entire 8 hours of clinical.	1.41	1.24	0.27
Students were prepared to provide specific rationales for their actions during the simulation scenario.	0.25	0.47	0.50
Students demonstrated their ability to communicate with other providers of the healthcare team.	0.23	0.49	0.48

Conted…

The students demonstrated their ability to obtain pertinent subjective and objective data and report findings to the instructor.	0.79	1.24	0.27
The students demonstrated their critical thinking skills learning through the nursing program during the simulation.	0.045	0.087	0.768

DISCUSSION

The results from this study conveyed several findings, which proved pertinent to concluding factors significant to the leadership capacity in simulation education process. Components such as faculty effectiveness, simulation best practices, faculty development, and the differences between national and international academic institutions were analyzed to assess their correlation, if any, to simulation education. While evaluating possible factors that may have been significant in aiding faculty provide effective leadership simulation education, elements such as develop professional integrity, plan constructive feedback, clear communication, design a safe learning environment, and direct assessment of students' acquisition of knowledge were examined for significance.

After assessing each characteristic, the study concluded that none but one of the above possessed a statistical significance. Faculty's assessment of students' acquisition of knowledge and skills during individual simulation scenarios proved to be the only factor that assisted faculty advance simulation education. This finding may be in part due to the fact that faculty assessment of students' knowledge internally revealed possible process improvement opportunities and even further, inefficient faculty teaching styles.[15] Podlinksi contests that awareness to students' simulation knowledge allows faculty to both ensure that repetitive simulation practice is administered to students who may be in need, as well as establish multiple learning strategies and individualized learning that is tailored to each student. Alternative factors that could be taken into consideration are faculty emotional intelligence scores, reactions to student feedback, and ability to formulate various learning strategies for students according to their comprehension level and familiarity with assigned simulation scenarios.

The study highlighted several best practice methods being utilized at both Universities. Methods included were constructive feedback from faculty, a safe learning environment conducive for active learning, and faculty's professional integrity. These methods which conveyed what faculty regarded imperative for effective nursing simulation education, were congruent with past research simulation studies.[16] Findings such as these present a strong argument for the incorporation and perhaps comprehensive regulation of the above practices into the curricula of nursing programs. Moreover, in advancing best practices within nursing simulation, several studies offered auxiliary applications that can be further implemented. Within her study, Franklin urged nursing faculty to integrate pre-briefing and debriefing orientations at the commencement and conclusion of simulation exercises. Franklin goes further to contest that these orientations possess advantages in regards to student understanding and overall simulation development.[16]

Because simulation is unique from the standard classroom teaching methods, faculty will often require more time and preparation to become accustomed. Henceforth, the development of faculty for leadership role to effectively utilize simulation in designing and developing scenarios is imperative to properly evaluating student performance and ensuring positive student outcomes.[14] A critical component in providing effective simulation education to students is the availability of faculty developmental opportunities and the faculty's willingness to undertake such training. However, this study indicated that the majority of faculty within King Saud University and University of Ottawa were averse to this assertion. According to their responses, most faculty fail to undertake simulation development opportunities to broaden their knowledge and leadership capacity on the subject. This proves costly to promoting learning continuity and may pose negative repercussions on students' simulation education. While this study did not analyze factors which contributed to faculty failure in undertaking development opportunities, future research should be conducted to develop solutions to combat this fact. Possible solutions may include the establishment of initiatives such as faculty grants, sabbatical allotments and even mandating simulation development credits as a prerequisite for faculty tenure.

CONCLUSION

The findings drawn from King Saud University and University of Ottawa's nursing faculty response sheds light on the effectiveness of simulation as well as areas for process improvement. To establish leadership role in simulation education, require effectiveness of leadership capacity to examine related issues in the designing simulation-learning environment, implementing and integrating simulation in nursing education. Furthermore, the simulation leader educators will lead simulation initiatives national and international nursing program by working on a group projects that creates and expand simulation content and innovation resources.

Ethical Clearnace: Participants were assured of the anonymity of their responses during the focus group discussions using informed consent. This research received institutional review board approval.

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Effectiveness of Structured Teaching Programme on Knowledge and Practice Regarding Long Term Oxygen Therapy: A Pre-Experimental Study

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ABSTRACT

The need for long term oxygen therapy is a crucial mainstay of treatment for patients with chronic obstructive pulmonary disease. Oxygen administration is vital, adequate knowledge and safe practices will improve the compliance. Oxygen is expensive and poses the risk of serious side effects, such as oxygen toxicity and atelectasis. Hence the concentration of oxygen has to be monitored continuously. Therefore A pre-experimental study was undertaken,to assess the knowledge and practice of patients regarding Long term oxygen therapy before and after the structured teaching program and to determine the relationship between the knowledge and practice and also to find association between knowledge and practice of patients regarding long term oxygen therapy with selected demographic and clinical variables. A total enumerative sampling technique was used to recruit 67 subjects with obstructive and restrictive disorders admitted in wards and out- patient department of Pulmonary Medicine. Data was collected using self-reported knowledge and practice questionnaire on safe usage of oxygen, prevention of infection, compliance and risk reduction on long term oxygen therapy. Analysis revealed that there is a significant difference in the knowledge and practice between pre-test and post- test scores with p-value of <0.001,there is also a significant correlation between pre-test scores of knowledge and practicewith p-value of <0.001.

Keywords: long term oxygen therapy

INTRODUCTION

Oxygen therapy is the most common mode of Respiratory care in alternative care settings. The need or demand for Oxygen is a crucial condition where the promptness is essential in providing Oxygen therapy to the individual in need. Oxygen therapy is one of the principal non-pharmacologic treatments for patients with severe obstructive and restrictive disorders.

The survival, cognitive performance and quality of life of patients with chronic obstructive pulmonary disease are improved with supplemental oxygen therapy. The high use of oxygen is based on the fact that oxygen therapy improves both survival and quality of life in patients with advanced COPD[1, 2]. The improved nocturnal oxygen saturation, reduces pulmonary artery pressure, and lowers pulmonary vascular resistance with appropriate outpatient oxygen therapy[3]. With increasing use of home oxygen therapy, clients and health care professionals need to be aware of the dangers of combustion[4].Determine the oxygen prescription for rest, exercise, and sleep, and instruct patient and care giver to follow these flow rates. Therefore when Home Oxygen Therapy is prescribed to patients,the family members have to be oriented on safe usage. There is need to provide repeated educational sessions to patients on Long Term Oxygen Therapy (LTOT) to extend hours of oxygen therapy outside the house and obtain a good compliance. In fact, although patients felt that they had received in-depth and exhaustive information concerning oxygen therapy, their behaviour did not always reflect what they have learnt[5]. Evidence for long term oxygen therapy for Patients with stable chronic obstructive pulmonary disease (COPD) and a resting PaO2 $\leq$7.3 kPa to PaO2 $\leq$8 kPa with evidence of peripheral oedema, polycythaemia (haematocrit $\geq$55%) or pulmonary hypertension[6]

All these studies emphasize the significance and the growing need to prepare patients using long term oxygen at home in preventing accidents and to improve compliance in preventing complications. Nurses play a

vital role in educating patients on safe usage, promoting adherence to the treatment as per the prescription, preventing infection and reducing risk. Hence this study aims to assess the effectiveness of structured teaching programme on knowledge, practice, regarding LTOT among patients admitted in pulmonary medicine wards and visiting outpatient department.

Statement of the problem: A Pre-experimental study to determine the effectiveness of structured teaching programme on knowledge and practice regarding long term oxygen therapy among patients admitted in wards and visiting out-patient department of pulmonary medicine, of CMC, Vellore.

OBJECTIVES

The objectives of the study were to

- Assess the knowledge and practice of patients regarding LTOT before and after the structured teaching program.

- Identify the relationship between the knowledge and practice of patients regarding LTOT.

- Find the association between knowledge and practice of patients regarding LTOT with selected demographic and clinical variables.

MATERIAL AND METHOD

A quantitative research approach with pre-experimental one group pre-test and post-test design was used. The study was conducted in Pulmonary Medicine wards and out-patient department. The study sample comprised of patients with Obstructive and Restrictive Respiratory Disorders admitted in the wards and visiting outpatient department. The population consists of those who are already initiated on LTOT and are continuing oxygen at home. Total enumerative sampling technique was used to select 67 subjects who met the inclusion criteria. On an average 1-2 patients attended outpatient department or seen in wards. All subjects were given a one on one structured teaching where direct interaction helps to clear their doubts better. Number of days between pre-test and post-test was the same in all patients.

Sample size calculation: The sample size was calculated based on the data from pilot study. Sample size has been calculated with the help of statistician. Formula used-n $= 4*SD/precision = 4*(15*15)/(3.75*3.75) = 64$. Considering an attrition total of 67 subjects were recruited.

Instrument: A proforma was used to collect socio-demographic and clinical data of the study participants. The proforma included gender, education, family income, occupation, and living locality. The clinical data studied were present smoking history, number of years on oxygen, and diagnosis. A self-reported knowledge questionnaire consists of 14 items on oxygen therapy such as characteristics of oxygen, safe usage, indications, sources, complications and infection prevention with LTOT was used. Each item has "yes" and "no" responses. Each 'yes' response was given a score of '1' and '0' for the 'no' response and the maximum total score is '14'. The higher score reflected higher knowledge. Practice questionnaire contains 21 items. It is a four point Likert scale, with scores of 0, 1, 2, and 3 for always, most of the time, some time, and never respectively. Reverse scoring was done for 8 items and the total score was 63. The items were related to safe usage, prevention of infection, compliance and risk reduction. Demographic data, knowledge and practice questionnaires were translated to Tamil and Hindi which were translated back to English in order to check the validity and feasibility of the two versions. The content validity was obtained by the validation from five nursing and medical experts. Reliability was tested using split half method.

Data collection: Knowledge and practice of patients on LTOT was assessed. The responses for each item in the pre-test were explained using a structured teaching program with handouts. Structured teaching program was conducted to make them understand and to improve their compliance to the therapeutic regimen. Pre-test was done to assess the Patient's knowledge and practice aspects on safe use of oxygen by the use of self-reported questionnaire for 30 minutes. The post- test was done after a month using the same self-reported tool either in person or through telephonic interview.

Analysis: Descriptive statistics (frequency and percentage) were used to analyse demographic and clinical variables. Paired t-test was used to assess the differences between the pre-test and post-test of knowledge and practice of LTOT, Pearson's correlation test was used to correlate the pre and post test scores of knowledge and practice, and chi- square for association of demographic variables with knowledge and practice scores of LTOT.

Results and discussion: Statistical package for the social sciences (SPSS) version 16 was used to analyse the data. The baseline data showed, that the mean age of the study participants was 57.91years (range 27-88years,

SD= 14.51). Majority of the subjects (73.13%) were females, 56.17% had school education, 59.70% of subjects income was above twenty thousand/month, 62.69% of them live in urban and 58% of them were professionals by occupation (Table 1).

The clinical variables presented in Table -2 depicts the majority of the subjects are non-smokers, only 1.49% are found to be smoking ,62.69%of them are with diagnosis of interstitial lung disease, and 44.78% of them are on LTOT for ≥ 2 years.

The first objective of the study is to assess the knowledge and practice of patients regarding long term oxygen therapy before and after structured teaching.

The findings of the pre-test knowledge mean scores of 10.5 and post-test knowledge is 13.9. Similarly the mean scores for the pre- practice are 45.5 and post practice is 58.4. This reveals (as shown in table-3) has statistical significance between the pre and post, knowledge and practices of patients those who are using long term oxygen therapy.

The differences between four domains of practices such as safe usage, prevention of infection, compliance and risk reduction were assessed before and after the structured teaching. The findings revealed (as shown in table-4) that there is a statistical significant between the pre and post practice domains with p- value of < 0.001.

The second objective of the study is to determine the correlation of knowledge and practice of patients with long term oxygen therapy.

The fig- 1 Reveals that there is statistically significant positive correlation between overall knowledge and practice (r= 0.379; p=0.001). The significant is also shown with knowledge and compliance in practice (r= 0.256; p=0.036), knowledge and risk reduction in practice (r= 364; p=0.002).

The third objective is to find the association between knowledge and practice of patients regarding LTOT with their demographic and clinical variables

There is no significant association between knowledge and practice of patients regarding LOT with their demographic and clinical variables.

The level of risk reduction in pre-test practice scenario was inadequate but after the structured teaching program the practice level has come to a moderately adequate level. Between 2005 and 2014, there were 16 deaths and 47 injuries in Massachusetts fires where home

oxygen was used. Smoking caused most of the fire[7]. Most problems with LTOT delivery systems are related to people. Patients and caregivers often fail to follow instructions or comply with the prescribed therapeutic or maintenance regimen[8].

RESULTS AND DISCUSSIONS

Section A
Table 1: Distribution of subjects according to their demographic variables

(N = 67)

Demographic variables	Frequency	Percentage
Sex		
Male	18	26.87
Female	49	73.13
Education		
Illiterate	12	17.91
School education	38	56.71
College	17	25.38
Income		
5000	2	2.99
10000	8	11.94
15000	17	25.37
>20000	40	59.70
Living locality		
Urban	42	62.69
Rural	25	37.31
Occupation		
Professional	39	58.21
Unskilled	28	41.79

Table 2: Distribution of subjects according to their clinical variables

Clinical variable	Frequency	Percentage
Smoking		
Yes	1	1.49
No	66	98.51
Diagnosis		
COPD	25	37.31
ILD	42	62.69
Number of Years on O2		
1 Yr	19	28.36
2yr	30	44.78
3yr& above	14	20.90

Section B

Table 3: Differences between pre and post-knowledge&practice

Variable	Mean ± sd		p-value
	Pre-test	**Post-test**	
Knowledge	10.5 ± 2.5	13.9 ± 2.62	<0.001
Practice	45.5 ± 7.31	58.4 ± 8.61	<0.001

Table 4: Differences between pre; post practice domains on safe usage, prevention of infection, compliance, and risk reduction

Variable	Mean ± sd		p-value
	Pre-test	**Post-test**	
Safe usage–I	21.5 ± 2.41	23.28 ± 1.04	<0.001
Prevention of infection–II	7.07 ± 2.06	8.90 ± 0.50	<0.001
Compliance–III	8.99 ± 3.02	14.37 ± 7.74	<0.001
Risk Reduction–IV	7.87 ± 3.15	11.8 ± 2.96	<0.001

Section C

r = 0.379, p =0.001

Fig. 1: Distribution of subjects according to the Correlation between knowledge and practice

Section D

Table 5: Association between of demographic and clinical variables with knowledge and practice

Variable	N	Knowledge	P. value	Practice	P. value
Sex					
Male	18	10.6 ± 2.33	.840	47.0 ± 7.43	.305
Female	49	10.47 ± 2.6		44.92 ± 7.26	
Marital status					
Married	50	10.6 ± 2.04	.609	44.80 ± 6.92	.195
Unmarried	17	10.24 ± 3.63		47.47 ± 8.24	
Occupation					
Professional	39	9.90 ± 2.37	.018	43.85 ± 5.57	.029
Unskilled	28	11.36 ± 2.50		47.75 ± 8.81	
Environment					
Urban	42	10.55 ± 1.95	.867	45.0 ± 7.43	.492
Rural	25	10.44 ± 3.29		46.28 ± 7.17	
Smoking					
Yes	1	11.0 ± 0	-	57.00 ± 0	-
No	66	10.50 ± 2.53		45.30 ± 7.22	
Diagnosis					
COPD	25	11.08 ± 1.96	.152	45.44 ± 7.85	.974
ILD	42	10.17 ± 2.76		45.50 ± 7.06	
Education					
Illiterate	12	9.25 ± 2.70	0.306	41.33 ± 6.07	0.121
Hr. sec	38	10.61 ± 2.70		46.29 ± 6.98	
Graduate	17	11.18 ± 1.59		46.59 ± 8.15	

Conted…

Income					
Upto- 15000	10	10.20 ± 2.97		50.10 ± 9.87	
15000-20000	17	9.65 ± 3.14	1.000	43.53 ± 6.44	0.071
>20000	40	10.95 ± 2.01		45.15 ± 6.60	
Number of years on O2					
1 year	19	10.47 ± 2.12		43.68 ± 6.07	
2 year	30	10.23 ± 2.94	1.000	45.63 ± 8.93	1.000
>3 year	18	11.0 ± 2.14		47.11 ± 5.05	

CONCLUSION

Nurses should be aware that the knowledge and different aspects of practice in LTOT has not only a great impact on the patient's clinical condition but also on their safety issues. Nurses should educate the patients on the safe usage, prevention of infection, compliance and risk reduction while using oxygen at home. Further studied can be undertaken to assess the knowledge and practice in progressive intervals, assess the level of coping and the effectiveness of awareness programs to reduce high risk behaviours among patients on LTOT.

The economics of LTOT is still unaffordable for the average citizen. The cheapest method a patient can opt for LTOT is by using oxygen cylinders, which unfortunately are also unaffordable for a number of people. We should move towards making LTOT a viable and affordable treatment to the average citizen by being a liaison between the governments to bring this under the insurance policies.

Conflict of Interest: Nil

Source of Funding: Self

Ethical Clearance: Ethical clearance was obtained from the institution, where the study was conducted. Permission was obtained from the concerned authorities. Informed consent was obtained from the subjects prior to data collection and confidentiality of information was ensured.

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Effectiveness of Calendula Oil Application on LSCS Wound Healing among Mothers Who has Undergone Lscs

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ABSTRACT

A study to assess the effectiveness of calendula oil application on LSCS wound healing among mothers who has undergone LSCS in selected hospitals. Background: Pregnancy and child birth are special events in an exceedingly woman's lives. Objectives: 1.To assess the status of LSCS wound among the post natal mothers. 2. To assess the effectiveness of calendula oil application for LSCS wound among postnatal mothers. Methodology- Quasi M an experimental two group pre-test post-test design was directed to assess effect of calendula oil on LSCS wound healing in selected tertiary care hospitals. Total 50 samples were selected by non-probability purposive sampling method. A standardized REEDA SCALE was used to assess the effect of calendula oil application on LSCS wound .The study adopted "widenbachs prescriptive theory" as a theoretical base for framework of the study. Analysis was done using frequency and percentage distribution and z test.

Keywords: *Effect, calendula oil, LSCS wound, mothers undergone LSCS*

INTRODUCTION

Pregnancy and child birth are special events in an exceedingly woman's lives. Ladies feel on high of the planet once she is close to offer birth to her child. A abdominal delivery could be a surgical operation during which incisions are created through a woman's abdomen and womb to deliver her baby. Trendy medical enhancements and practices have diode to a rise within the rate of caesarean births over recent years everywhere the planet. After all abdominal delivery statistics show that ladies in some countries are 50% additional probably to possess a caesarean birth as hostile than a vaginal birth.[1]

There are several reasons for the increase in abdominal delivery statistics, however here are the foremost common ones: - there's assumption that having a vaginal birth is additional dangerous for girls that have had a baby by c section antecedently, exaggerated financial gain for the hospitals that perform the operation implies that doctors are additional probably to steer ladies during this direction. Combined with a rise within the overall wealth of patients from developing countries, this might justify the general increase, The day of the birth will truly be elite to suit in with holidays and favorite birth dates etc, after all some mothers even report planning the birth around parties or special events, many ladies concern the pain of a natural birth and think about a c section to be a less risky possibility.[2]

Caesarean section rates are more and more rising in several components of the globe. One recommended reason is increasing requests by girls for caesarean delivery within the absence of clear medical indications, corresponding to placenta praevia, HIV infection, contractile pelvis and, arguably, breech birth or previous caesarean delivery. The reportable advantages of planned caesarean delivery embrace larger safety for the baby, less girdle floor trauma for the mother, shunning of labour pain and convenience.[3]

According to the newest information from one hundred fifty countries, presently 18.6% of all births

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occur by CS, starting from 6 June 1944 to 27.2%, in the minimum and most created locales, severally. Latin America and in this manner the Caribbean district has the CS rate (40.5%), trailed by Northern America (32.3%), archipelago (31.1%), Europe (25%), Asia(19.2) and mainland (7.3%) upheld the data from 121 nations, the investigation demonstrated that in the vicinity of 1990 and 2014,the worldwide over-the-slope CS rate duplicated 12.4%(from 6.7% to 19.1%) with as finished the-slope yearly rate of increment of 4.4 . the greatest total will increment happened in Latin America and consequently the Caribbean (19.4%, from 22.8% to 42.2%), took after by Asia (15.1%, from 4.4 % to 19.5%), archipelago (14.1 %, from 18.5% to 32.6 %), Europe (13.8%,from 22.3% to 7.4 %) . Asia and Northern America were the districts with the best and most reduced normal yearly rate of will increment (6.4% and 1.6%), severally.[4]

In Asian country over twenty one years to 2014, the richest quintile – prime 2 hundredth of the population by financial gain – undergoing caesarean delivery deliveries in Asian country has gone up from ten to half-hour, raising the country's average caesarean delivery rates from five you'll eighteen to overcome a similar amount, in line with a recent analysis of national health information .The rate of caesarean delivery among the poor has stayed a similar over this period: 5%.[4]

Motherhood is nice responsibility and it's women's highest crow of honor.[5] Thus maintain physiological condition throughout gestation, intranatal and postnatal amount is extremely necessary particularly within the stressful life.[6] gestation isn›t simply a matter of waiting to offer birth. It's usually a shaping introduce women's life; that could be a joyful and pleasant expertise .It also can be a misery and suffering for few. Gestation is also natural; however it doesn›t mean it's problem free.[7]

Caesarean delivery, conjointly called cesarean section, it is the surgery to deliver one or more neonates. A caesarean delivery commonly done once channel birth may place the neonate or mother in danger. It might embrace stopped up labour, twin gestation, high force per unit area within the mother, breech delivery, issues with the placenta, funiculus, form of the pelvis, and former C- section.[8]

An injection of labor in some of these things, and in addition when cesarean area is additionally potential.

Some c-areas are performed upon request.[8] the planet wellbeing association prescribes that they should be done bolstered therapeutic need and in a few cases they're deliverance for the mother and child[9]

A cesarean area typically takes 45 min to an hour. It will be done with a spinal block such that the women is alert or underneath general anesthesia. A urinary tubing is utilized to discharge the bladder and furthermore the skin of the abdomen is then cleaned with an antiseptic.. Relate entry point of concerning fifteen cm (6 inches) is then as a rule made through the mother's lower abdomen. The female interior conceptive organ is then opened with a moment entry point and furthermore the infant conveyed. The cuts are then sewed shut.[8] cesarean section conjointly usually take longer to heal from, concerning six weeks, than vaginal birth.[10]

MATERIALS AND METHODOLOGY

Research approach and design was quantitative approach with quasi experimental quasi experimental research design-2 group pre & post test design was used for the study.

Procedure for Data Collection: A formal permission was obtained from concerned authorities the investigator discussed the study with gynecologist and sister in charge from particular hospitals and informed consent from the postnatal mothers was obtained , the investigator collected data .the data was collected in three phases.

A total 50 samples were collected for the study as per the criteria of selection.25 was selected for experimental and 25 were selected for control group.

Data Collection was Done in Following Steps

Procedure for data collection

1. **Pre intervention phase:** The postnatal mothers according to criteria were selected and the informed consent was taken from selected postnatal mothers, demographic data was collected and recorded. The level of wound healing was assessed with the help of **REEDA SCALE** in both experimental and control group.

2. **Intervention phase:** In experimental group, Calendula oil application was done from 4th postnatal day for 7th and 9th day's twicely. In control group routine care was carried out.

Step of intervention:

Articles:

- Calendula oil

- REEDA Paper scale

- Packed gloves.

- BP handle

- Sterile gauze pad.

Procedure:

- Explain the procedure to mother.

- Explain the purpose and how she has to cooperate.

- Assemble article at procedure room.

- Assist mother to assume supine position.

- Scrub hand and put on gloves.

- Clean the LSCS wound with plane water.

- Take Calendula oil on gauze pad.

- Apply over LSCS wound for 1 hr.

Post intervention phase: The level of wound healing was assessed with the help of **REEDA SCALE** of application of Calendula oil in both experimental and control group from 4th postnatal day for 7th and 9th day's twicely.

Discussion of the Findings: The findings of present study have been discussed as per the objectives of the study. A finding of the study shows that the intervention of Calendula oil application was significantly effective for LSCS wound healing. And when compared together it was statistically found that there is highly significant difference among Calendula oil application group and in control group.

Researches in the past and presently used calendula oil for healing of LSCS wound.

CONCLUSION

Calendula oil with its healing properties calendula officinalis extract may aid in wound healing by promoting epithelial growth and by enhancing immune responses. The impacts may likewise be interceded by the incitement of phagocytosis, by expanded granulation, and by means of consequences for digestion of glycoprotein's, nucleoproteins, and collagen proteins in tissue recovery.

Measurably mean score discoveries demonstrated that calendula oil application is helpful in LSCS wound mending. Also, there is factual noteworthy distinction in the intercession gathering and control gathering. Consequently it is presumed that calendula oil is the best and viable tropical specialist in LSCS wound healing

Conflict of Interest: Nil

Source of Funding: Self funding

Ethical Consideration: Ethical committee letter were submitted to the Bharati vidyapeeth (to be Deemed) University, Pune and obtained permission from university to conduct the research. Permission from consent authority and mothers undergone LSCS were obtained before data collection.

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Dietary Pattern and Prevalence of Overweight & Obesity Among Children Aged 6-11 Years in Southern Part of Kerala, India–A Pilot Study

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ABSTRACT

Prevalence of overweight and obesity is highly linked with dietary pattern. Food habits followed at young age continues to remain same even as we grow. An increased calorie intake with decreased physical activity is also a main factor in increasing the weight of an individual. The aim of the study was to study the dietary pattern existing among school children and the prevalence of overweight and obesity observed among them.

Method: A descriptive survey was conducted among 175 children aged 6-11 years of age attending two different schools. Anthropometric measurements including Body Mass Index(BMI) were measured. The dietary habits followed by the children were collected using a questionnaire which focused on information sought from both parents and children.

Results: 21.6% of boys were overweight while 8.2% were obese, while 16.7% girls were overweight & 5.1% were obese. 38.4% of obese & overweight children were single child of their parents and 30.4% were first born child.

Keywords: *Prevalence, Obesity, Dietary pattern*

INTRODUCTION

Food has always attracted children based on its appearance, taste and availability. With the modern day life style food is readily available and at the same time the buying power of people has improved. Children get attracted more to the advertisements and fancy food in this manner. Fat children are considered to be healthy, a concept that continues in Indian culture. There are increasing reported cases of non communicable disease and obesity is determined to be one of the contributing factor. Children who are obese at young age continue to be the same even in their adult life. This study basically highlights on the prevalence of obesity and overweight among 6-11 years old children and the dietary pattern they follow. India will have over 17 million obese children by 2025 and it stand second among 184 countries where the number of obese children are concerned[1]. It has been observed through several study findings that the overweight and obesity in children are gradually growing not only in developed and developing countries but also in the state of Kerala[2].

MATERIALS AND METHOD

The descriptive survey design approach was carried out among 175 children studying in class I to class VI in the age group of 6-11 years. The students were selected randomly from two different schools. The study was conducted after obtaining necessary permission from the Headmaster as well as the District Assistant Director of Education. As the study involved both the child as well as the parent, informed consent was obtained from both. The height, weight and body mass index were calculated for each child .Height of the child was measured to nearer 0.1 cm using a non flexible inch tape measure and noted in meters. Age of the child was derived using school records. Weight was measured using a calibrated standard weighing machine. BMI:-Body Mass Index is generally used for assessing the nutritional status. It is

expressed as a ratio of weight inkilogram to height in metresquare .The BMI was calculated using the formula : BMI = Weight(kg)/ Height (m^2).All the measurements were done after removing the shoes and with light clothing. Prevalence of obesity and overweight were categorized using the age and sex specific BMI cut offs for Indian children[3].

Performa and Questionnaires related to dietary pattern was given to parents along with the consent form. The questionnaires on eating patterns had two sections. Section 1 there were 11 questions which were asked to parents and Section 2 had 7 questions which were asked to child. The demographic performa had questions related to age of child, sex, class in which he/ she studies, occupation of parent, type of family, age till which breast feeding was given. Both child and parents were involved during the data collection. The eating habits of the children were assessed using questions asked to parents and to the child.

FINDINGS

Table 1: Prevalence of Overweight and Obese children according to gender and age

Age (yrs.)	Number	Boys			Number	Girls		
		OW	OB	NON OBESE		OW	OB	NON OBESE
6-8	19	4	0	15	19	2	1	16
8-10	30	6	4	20	27	5	0	22
10-11	48	11	4	33	32	6	3	23
Total	97	21 (21.6%)	8 (8.2%)	68 (70.1%)	78	13 (16.7%)	4 (5.1%)	61 (78.2%)

Among boys, the prevalence of children with overweight was 21.6% and the prevalence of obese children was 8.2% giving an overall prevalence (OW & OB) of 29.9%. The corresponding figures among girls were 16.7%, 5.1% and 21.8% respectively. The prevalence among boys was higher compared to that among girls. However, the difference was not statistically significant. The prevalence of overweight &obesity in both boys and girls was found to be 46(26%) which showed an increasing rise.

Table 2: Prevalence of overweight and obese with selected variables

Variables	Overweight & Obese		Non Obese		Total (all children)
	n	%	N	%	N
1. Number of Children					
One	10	38.4	16	61.5	26
Two	23	20.9	87	79.0	110
Three	13	33.3	26	66.6	39
2. Birth Order of Child					
First	21	30.4	48	69.5	69
Second	21	21.6	76	78.3	97
Third & above	4	44.4	05	55.5	09

Table 2 shows that 10(38.4%) children were found to be overweight and obese belonged to parents having only one child . 21(30.4%) of overweight and obese were first born while 10(38.4%) overweight & obese children had exclusive breast feeding in 1-3 months. On the counterpart 97(75%) of non obese children had exclusive breast feeding till 3-6 months.

Table 3: Dietary habits among children and prevalence of overweight & obesity

Dietary particulars (reported by parent)	Obesity & Overweight		Non obese		Total no of children		P value
	N	%	N	%	N	%	
1. Frequency of non vegetarian diet							
daily	14	31.8	30	68.1	44	25	
weekly once	16	22.2	56	77.7	72	41	0.57(NS)
twice in a week	16	27.1	43	72.8	59	33	
2. Preferred form of food							
deep fried	15	45	18	54.5	33	18.8	
shallow fried	10	19	42	80.7	52	29.7	
boiled	09	19	37	80.4	46	26.2	0.40 (NS)
steamed	12	27	32	72	44	25.1	
3. Preference for fruits & vegetables							
do have	06	4.6	124	95.3	130	74.2	
do not have	40	88	05	11	45	25.7	0.64 (NS)
4. Add extra ghee/oil in food							
yes	17	34	33	66	50	28.5	
no	29	23	96	76	125	71.4	0.31 (NS)
6.Frequency of consuming commercial drinks(times per week)							
daily	0	0	05	100	5	2.8	
weekly once	07	36.8	12	63	19	10.8	
weekly twice	04	23.5	13	76	17	97	0.50 (NS)
rarely	29	21.6	105	78	134	76.5	
7. Calorie checking while buying food stuff							
yes	35	48.6	37	51	72	41	
no	11	10.6	92	89	103	58.8	0.70 (NS)
8. Diet preferences in parents							
similar	32	58	23	41.8	55	31.4	
non similar	14	11.6	106	88	120	68.5	0.89 (NS)

Table3 shows the dietary habits of children in which 4 (2.2%) children were vegetarian, 27 (15%)children were non vegetarian and 144 (82%)children were on mixed diet. Considering the frequency of non vegetarian diet followed it was observed that 44(25%) children consumed non vegetarian diet daily while 72(41%) children had it weekly once and 59(33%) children had it twice in a week. It was further observed that 30(68%) of children in obese and overweight group had non vegetarian diet on daily basis . 35(48.6%) Parents of obese & overweight category checked the caloric value of packed food while out of 175 children only 72(41%) checked the caloric value of packed foods. The diet preferences in parents of overweight & obese and their children was found to be 32(58%) while out of total 175 children 120(68.5%) had no similarity in food preferences with parents. Further there was no association between dietary habits and BMI (OW & OB) as the test of significance chi square showed no significant results.

Table 4: Dietary practice of child and prevalence of overweight and obesity

Dietary practices	Overweight & Obesity		Non obese		Total no of children		P value
	n	%	n	%	N	%	
1. Add extra sugar to food served							
Yes	13	27.6	34	72	47	26.8	
No	33	25.7	95	74	128	73	0.72 (NS)
2. Eating snacks watching television							
Yes	19	20.8	72	79	91	52	
No	27	32	57	67.8	84	48	1.0 (NS)

Conted…

3. Skip breakfast							
Yes sometimes	18	24.6	55	75	73	41.7	1.0 (NS)
No never	28	27.4	74	72	102	58.2	
4. Overeat when no more hungry							
Yes	6	25	18	75	24	13.7	0.32 (NS)
No	40	26.5	111	73.5	151	86.2	
5. Overeat when happy or sad							
Yes	9	25.7	26	74.2	35	20	0.41 (NS)
No	37	26.4	103	73.5	140	80	
6. Have a feeling to be thinner							
Never	19	25.3	56	74.6	75	42.8	
Sometimes	20	25.3	59	74.6	79	45.1	1.0 (NS)
Always	07	33.3	14	66.6	21	12	

Table 4 depicts 27.6% of children belonging to overweight &obesity category added extra sugar to the food served while 72% of children added extra sugar to the food served in the non obese category. 91(52%) of children snacked while watching television and out of which 19 (20.8%) belonged to overweight & obese category. Further the table shows that there was no significant association between dietary practice and BMI(OW & OB)

DISCUSSION

The study findings revealed that the prevalence of overweight & obesity among boys was higher compared to that among girls. This is similar to a study done in Jaipur where about 8% of boys and 6% of girls were obese[4]. Further it was observed that in 10-11 age group both boys as well as girls reported to have maximum overweight & obesity. This finding is similar to a study reported in Indore where highest prevalence was seen in both sexes in 9-11 year age group[5].The prevalence of obesity and overweight is 26% in this study .In a similar study conducted in Madurai the prevalence of obesity was found to be 9.3% and prevalence of overweight was found to be 16.8%[6]. Further Food habits like eating non vegetarian, frequency of eating non vegetarian diet , adding extra ghee to food stuff ,diet preference with parents followed did not have any significant relationship with obesity and overweight. Similar findings were reported in a study conducted in Bhopal[7]. Food eating practices like eating snacks watching television, skipping breakfast, overeating in emotional stage also showed no significant association with obesity & overweight. This study finding is similar to a study done in Mysore[8].

CONCLUSION

The present study shows increasing trend in rise in overweight and obesity. It is necessary to involve parents in framing a lifestyle for children and support them in weight management. The school authority can also integrate the National school health program for building up effective and healthier children.

Conflict of Interest: None.

Ethical Clearance: The study was conducted with permission from District Director of Education, Heads of schools approached & parents & study participants. The IEC clearance was also taken.

Source of Support: Nil

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Effects of Massage Therapy With Almond Oil on Level of Bilirubin Among Neonates with Jaundice

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ABSTRACT

The present study was conducted to assess the effectiveness of massage therapy with almond oil on level of bilirubin among the neonates with jaundice receiving phototherapy in selected NICUs of sangli city. Quasi experimental research design was adopted for this study. The sample comprised of 40 neonates who were receiving phototherapy which were equally divided into experimental and control group. Sample was selected using Non-probability purposive sampling technique. Neonates receiving phototherapy and who was hemodynamically stable were included in the study. Neonates who are sick, having hypersensitivity to almond oil and with tracheoesophageal fistula, Diaphragmatic Hernia and Mega colon were excluded from the study. Data collection was done using observational checklist which included parameters such as level of bilirubin, defecation frequency, total feeding amount and weight.

Even though the study showed that there was no significant difference in the level of bilirubin after applying massage therapy with almond oil, but there was significant change in defecation frequency. Also the mean score of bilirubin in experimental group showed reduction than the control group. So the researcher concluded the study that the massage therapy with the almond oil got positive effect on bilirubin level.

Keywords: *Neonatal jaundice, Massage therapy, Bilirubin level, Phototherapy*

INTRODUCTION

"A new baby is like the beginning of all things- wonder, hope, a dream of possibilities."

Jaundice is the commonest anomalous physical finding amid first seven day stretch of life. 25-half of all term babies and higher level of untimely newborn children create clinical jaundice.[1] Deorari et al.2007 conducted a study in Delhi which showed that 56% of Infants matured 0-6 days were conceded with an essential analysis of jaundice.[2]

The word 'Jaundice' is gotten from the French word 'Jaune' which means yellow. It is characteristic of the yellow shading of the skin of infants with neonatal Jaundice, caused by the nearness of over the top serum bilirubin. Bilirubin, a yellowish-red color shaped amid the breakdown of red platelets (RBC), is ordinarily present in the blood in little amounts. At the point when there is intemperate red platelet breakdown, the bilirubin level in the blood goes up and it additionally gets saved in the tissues, giving a yellow shading to the skin.

In more of the cases, Neonatal Jaundice does not require medicinal treatment. Be that as it may, if the level of serum bilirubin is high, it should be controlled. Phototherapy is a fantastic method for treating Hyperbilirubinemia. The bilirubin saved under the surface of the skin ingests glaring light and is changed over into a substance that can be effectively discharged through bowel movements. This treatment should be possible in a healing facility or can be done at home and ought to be proceeded for a couple of days keeping in mind the end goal to be sufficiently effective.[3]

In any case, the medicinal practice that has turned out to be most basic for curing hyperbilirubinemia is phototherapy, which has a few reactions running from doing damage to the cornea and the genital area, causing lack of hydration, looseness of the bowels and bronze child disorder. In this manner there is reliable research proceeding to find a substitute for phototherapy or to diminish the traverse of the same.

Baby massage is a customary practice in a couple of locale of the world, to be more correct, in the lifestyle

of Africa and Asia, as in the all inclusive community of indigenous South Pacific and in the Commonwealth of Independent States.[4] Human touch has been appeared to be sincerely and physically mending for a considerable length of time. Touch is a primal need, and the primary critical method of correspondence between a mother and her new baby.[5]

Infant well disposed approach proposes that positive touch and back rub are essential parts of kid mind as it advances wellbeing on all levels – physiologically, mentally, sincerely and developmentally.[6] Though infant and newborn child massage is a custom in India and other Asian nations now it has been risen in everywhere throughout the world as it has beneficial outcomes regarding weight increase, better rest wake design, upgraded neuromotor improvement, passionate holding, decreased rates of nosocomial contamination, jaundice, hypothermia, skin issue etc.[7]

Almond oil had been utilized widely for its medical advantages and as a delight help much before science made up for lost time with the decency of this seed oil. Extremely prevalent in Southeast Asia and in the Mediterranean locale where the Almond tree was first trained, the almond pieces and the nutty oil removed from them were credited with advancing heart and skin wellbeing.[8]

REVIEW OF LITERATURE

The reviewed literature for the present study were organised under the following headings-

1. Literature related to Neonatal Jaundice

2. Literature related to effect of massage therapy on level of bilirubin

3. Literature related to effect of massage therapy with almond oil on level of bilirubin

1. **Literature review related to Neonatal Jaundice:** A Descriptive Study directed by Garg Paridhi et.al. creator on Etiology of Neonatal Jaundice at tertiary care focus in Maharashtra at Government Medical College, Akola, from period first May 2014 to 31st October 2014. The investigation reasoned that Out of 108 embittered babies, 60.19% were young men and 39.81 % young ladies. Out of aggregate, 32.40% were preterm and 67.61% were full term. Physiological jaundice was seen in 44.4% of cases

and 55.6% were having obsessive reason. Among them sepsis 12%, ABO inconsistency 11.1%, Rh contradiction 4.6% were three most normal causes saw in exhibit study.[9]

2. **Literature review related to effect of massage therapy on level of bilirubin:** A trial examine led by Anitha Robert et.al. to survey the adequacy of restorative massage therapy on level of bilirubin among neonates with physiological jaundice at chose healing center, Chennai in 2015.A Quantitative approach, True-trial - Pre test post test configuration was received for the present investigation. Thirty neonates each in study and control amass were chosen by straightforward irregular examining strategy lottery technique. In think about gathering every neonate was given the remedial massage therapy twice day by day with 4 hours interim for a time of 5 days. The pre and post test level of bilirubin was evaluated by utilizing Modified Neonatal Emergency and Transport Services (NETS) Guidelines Scale. The comes about inferred that there was high measurable huge diminishment in level of bilirubin among neonates in the investigation aggregate who got the remedial massage.[10]

3. **Literature review related to effect of massage therapy with almond oil on level of bilirubin:** An Experimental examination led by Mahdi Basiri-Moghadam et al. to assess the impacts of massage therapy on transcutaneous bilirubin of stable preterm newborn children. The controlled clinical trial was directed in 2014 at Shahid Hasheminejhad Hospital, Iran, and included preterm neonatal kids in the neonatal emergency unit. There was 40 babies in the isolated similarly into exploratory and control bunch by arbitrary portion. The youngsters in the control amass got the standard treatment. While those in the trial bunch experienced a similar four days of routine in addition to 20 minutes of massage therapy with almond oil twice per day. The transcutaneous bilirubin and the quantity of discharges of the infants were noted from the first to the fourth day of the mediation and results were looked at between the two groups. The ponder discoveries were there was a critical distinction in the seasons of crap (p=0.002) and in the level of bilirubin (p=0.003) between the gatherings with those in the

massage group assemble having a higher number of bowel movements and in addition a lower level of transcutaneous bilirubin. The examination presumed that through massage treatment the bilirubin level in preterm babies can be controlled and a requirement for phototherapy can likewise be delayed.[11]

RESEARCH METHODOLOGY

In the present study, A Quantitative research approach is used for the study as the study result will be in numerical form. Quantitative approach was adopted to testing the hypothesis that applying massage therapy with almond oil on neonates with jaundice to check the reduction of level of bilirubin.

Research design selected for the present study is a Quasi experimental Non randomised control group design as the study got control and experimental group. The research design is the plan of organization of a scientific investigation. In this study, Non probability purposive sampling technique was used. Samples were selected as per the Inclusion criteria.

PROCEDURE OF DATA COLLECTION

After obtaining the necessary permissions from the concerned authorities and informed consent from the parents of neonates, the researcher collected necessary data.

The data collected in three phases.

Pre intervention phase: Phase I- Demographic data was collected from parents of samples in the experimental and control group. Bilirubin level and weight were assessed in both group.

Intervention phase: Phase II- In experimental group, Massage therapy with almond oil were applied for 20minutes for 4 days, twice a day. In control group, hospital routine was carried out.

Post-intervention phase: Phase III- The researcher will check the level of bilirubin on day 1st (pre-assessment), 3rd and 5th of massage therapy, and assess other characteristics like defecation frequency, Total feeding amount/ breast feeding times, and weight on day 1st - day 5th of massage therapy.

DISCUSSION AND RESULTS

The study showed that there was significant difference in the bilirubin level, defecation frequency and feeding amount in experimental group on pre assessment and 5th day of massage therapy with almond oil as the p value is less than 0.05. There was no significant difference in weight in experimental group on pre assessment and 5th day massage therapy with almond oil as the p value is more than 0.05. Even though there was no statistical difference in weight in experimental group but there was difference in mean of weight in pre and post assessment, which shows increase in weight at 5th day of massage therapy.

There was significant difference in the bilirubin level, feeding amount and defecation frequency in control group on pre assessment and 5th day assessment as the p value is less than 0.05. Weight is statistically reduced in control group on pre and post assessment as the p value is less than 0.05. But there was no significant difference in bilirubin level, feeding amount and weight in experimental and control group as the p-value is less than 0.05 and there is significant difference in defecation frequency in experimental and control group as the p-value is more than 0.05. The fact that massage therapy increase number of defecation frequency & excretes bilirubin through stools thereby reducing bilirubin level is supported by the many research studies.

This research shows that there is no significant change in level of bilirubin among neonates with jaundice receiving massage therapy with almond oil as the p- value is less than 0.05. but the bilirubin level reduced more faster in experimental group as compared to control group

CONCLUSION

After conducting the study, the researcher find out some possible reasons for not showing any significant change in bilirubin level between both groups after receiving massage therapy as follows:

In previous researches, the study showed effects of massage therapy on level of bilirubin as the inclusion criteria have specific range of each demographic variable such as age in days, level of bilirubin, birth weight and type of jaundice. Sample size was less i.e. 20 in experimental and 20 in control group. Day of life, weight, type of jaundice and type of phototherapy has effects on

bilirubin level. Many samples dropout from study due to less than 5days under phototherapy. Neonates with larger body surface area required more time for massage therapy usually till 25mins and have effects on bilirubin level. Some neonates cried excessively or passes stools during massage therapy so the massage was repeated. As some babies are out of phototherapy for longer duration like for breastfeeding or crying excess, the duration under phototherapy also have effects on the level of bilirubin. There was difference in age groups and weight of neonates in experimental and control group. Range of each sample was different in both groups which effects the study result.

Apart from the study objectives the researcher had assessed other selected parameters like defecation frequency, feeding amount and weight. There was no significant change in feeding amount and weight in experimental and control group as the p-value is more than 0.05. but there was difference in mean score level in both the groups, the experimental group mean score of weight and feeding amount is more as compared to control group.

There was significant change in defecation frequency of experimental and control group as the p-value is less than 0.05, and as many researches had proved that Massage therapy increases the excertion of stools which have effects on level of bilirubin. Thus Massage therapy with almond oil have effects on defecation frequency.

Researcher concluded that if the similar study conducted with more specific criteria like only one type of phototherapy and jaundice, a specific range of bilirubin then the massage therapy with almond oil have been proved more effective.

Even though the study showed that there is no significant difference in the level of bilirubin after applying massage therapy with almond oil, but there is significant change in defecation frequency, As many previous researches proved the fact that Massage therapy helps to reduce the level of bilirubin through increasing excretion of bilirubin through bowel movements. Thus massage therapy have effect on level of bilirubin.

Conflict of Interest: Nil

Source of Funding: Self funding

Ethical Considerations: Ethical committee letter were submitted to the Bharati Vidyapeeth (to be Deemed) University, Pune and obtained permission from university to conduct the research. Permission from concerned authority and parent of each sample were obtained before data collection.

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A Descriptive Study to Assess the Biopsychosocial Problems among Menopausal Women in Selected Areas of Jalandhar, Punjab, 2015

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ABSTRACT

"Menopause is an event in life, not a disease." The WHO defines menopause as 'the permanent cessation of menstruation resulting from the loss of ovarian follicular activity'. The normal age for the occurrence of menopause is between the age of 40-60 years. During menopause the women experiences Biopsychosocial problems and they affect each woman to a different extent.

The main aim of the study was to assess Biopsychosocial problems among menopausal women in order to improve their quality of life by providing pamphlet on management of menopausal symptoms. For this study descriptive research design was used. The study was conducted on 100 of menopausal women in the age group of 40-60 years the selected areas i.e. Shaheed Baba Deep Singh Nagar, Preet Nagar, Maqsudan Bye Pass, Moti Nagar, Gobind Nagar, Tagore Nagar, Garha, Santokhpura of Jalandhar, Punjab that was in age group 40-60 years. Sample was selected by convenience sampling technique & study was conducted in selected areas of Jalandhar, Punjab. Data was obtained by Socio- demographic variables and Modified menopause rating scale.

Collected data was analyzed by using descriptive and inferential statistics. Tables and Bar diagrams were used to depict the findings. The mean Biopsychosocial problems score was 14.29. Maximum of 74 (74.00%) Menopausal Women had mild Biopsychosocial Problems and least 26 (26.00%) menopausal women who had moderate Biopsychosocial problems. Selected socio demographic variables i.e. hormonal replacement therapy and physician check-up for menopause had impact on Biopsychosocial problems among menopausal women.

Keywords: *Biopsychosocial Problems, Menopausal Women.*

INTRODUCTION

"When we are no longer to change a situation, we are challenged to change ourselves."

Continuation of the universe is centered on the female gender. Her role keep on changing, she is a daughter, then wife, the mother and so on. Once mother, she leads the family unit and determines its course. She has the maximum influence on the family. These changing roles constantly change her normal physic. The family support influences the mental and physical development of women. Nowadays women participate in all activities such as social, cultural, political areas etc.[2]

The World Health Organization (WHO) (1996) defines menopause as 'the permanent cessation of menstruation resulting from the loss of ovarian follicular activity'.[4] It is also known as the climacterium or the "change of life" because of the physical changes that occur in addition to the loss of child bearing capacity. The climacteric is a transitional phase during which ovarian function and hormone production decline.[6] It is the end of menstruation and childbearing capability.[5]

About 25.1% of the Indian population belongs to the middle-age-group, out of which 12.89% belong to the

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menopausal group. The number of women approaching menopause is increasing nowadays and a majority of the women may spend a greater part of their life in postmenopausal years. About 75% of the women at menopause undergo various changes physically and psychologically, 25% need medical advice and only 5-10% of the women need reassurance.[9]

During and after menopause the women may experience health problems. Like puberty and pregnancy, menopause is influenced by physical and psychological problems caused by hormonal changes.[10] The women experiences bio psychosocial problems in menopausal period i.e., biological, psychological and social problems. These include irregular menses, vasomotor instability that is hot flushes and night sweats (the median duration of menopausal vasomotor symptoms is about 4 years but, in around 10% of women, they last longer than 12 years), atrophy of genitourinary tissue, increased stress, breast tenderness, vaginal dryness, forgetfulness, mood changes, and in certain cases osteoporosis and or heart disease. These effects are related to the hormonal changes a woman's body is going through, and they affect each woman to a different extent.

OBJECTIVES

1. To assess the Biopsychosocial Problems among Menopausal Women.

2. To find out the association between the Biopsychosocial Problems among menopausal women and their selected socio demographic variables.

3. To provide Pamphlet regarding management of Biopsychosocial problems among menopausal women.

MATERIAL AND METHOD

Research design: The research design selected for the study was Non-experimental descriptive research design to assess the Biopsychosocial Problems among Menopausal women.

Research setting: The study was conducted in Urban areas i.e. Shaheed Baba Deep Singh Nagar, Preet Nagar, Maqsudan Bye Pass, Moti Nagar, Gobind Nagar, Tagore Nagar, Garha, Santokhpura of Jalandhar, Punjab.

Target population: The target population were Menopausal Women in age group 40-60 years.

Sample and sampling technique: The total sample size was 100 menopausal women and convenience sampling technique was used to select the sample.

Inclusion and exclusion criteria

Inclusion criteria:

- Menopausal women who were in the age group of 40-60 years.

- Women who were willing to participate in the study.

Exclusion Criteria:

- Women who were suffering from severe mental and medical illnesses.

Variables

- **Research Variable:** Biopsychosocial Problems among menopausal women.

- **Socio demographic variables:** Age (in years), Educational status, occupation, income per month (in rupees), Marital status, type of family, Religion, awareness of husband about spouse menopause state, hormonal replacement therapy (HRT), physical check-up for menopause, using any alternative therapy for menopause, source of information about management of menopausal symptoms.

Selection and Development of Tool: Extensive review of literature was done from books, journals, internet and experts' opinion by their professional provided foundation for the construction of the tool. Socio demographic variables were selected for obtaining personal information, menopausal rating scale was modified to assess the Biopsychosocial problems among Menopausal women for data collection.

Description of tool: To accomplish the objectives of the study, a tool consisted of two parts:

Part 1: This part consisted of socio demographic variables i.e. Age (in years), Educational status, occupation, income per month (in rupees), Marital status, type of family, Religion, awareness of husband about spouse menopause state, hormonal replacement therapy (HRT), physician check-up for menopause, using any

alternative therapy for menopause, source of information about management of menopausal symptoms.

Part 2: Modified menopause rating scale related to Biopsychosocial problems. There are three categories of Biopsychosocial problems i.e. biological, psychological and social problems. The statements were developed for respondents to respond on four point rating scale i.e. none, mild, moderate and severe. Total 18 statements were there. Under each category, there were 6 statements. Therefore there were total 18 statements. The score of each statement was as follows:

None = 0, Mild = 1, Moderate = 2, Severe = 3.

The Maximum score was 54 and minimum score was 00.

Criterion measure for level of Biopsychosocial problems:

Biopsychosocial Problems	%	Score
None	00	00.00
Mild	01-26	1.85-48.14
Moderate	27-42	50.00-77.77
Severe	43-54	79.63-100.00

Maximum Score: 54

Minimum Score: 00

Validity of tool: Content validity was established by obtaining valuable opinions and suggestions from experts to know about the adequacy, appropriateness and completeness of the content of the content of instrument and to make amendments in the final study to get better results. The tool was edited by English and Punjabi language experts.

Reliability of the tool: Reliability was established by split half method and was calculated by Karl's Pearson's coefficient of correlation. The reliability of the Biopsychosocial problems was 0.85. Hence the tool was reliable.

Data collection procedure: The data collection procedure of the study was carried out in the month of March, 2015. The investigator, prior to commencing the task of data collection obtained permissions from the Counselors of the Municipal Corporation of Shaheed Baba Deep Singh Nagar, Preet Nagar, Maqsudan Bye Pass, Moti Nagar, Gobind Nagar, Tagore Nagar, Garha and Santokhpura areas of Jalandhar. The researcher introduced herself to the respondents and explained the purpose of gathering the information. The researcher had taken written informed consent from each study sample. Modified menopause rating scale was administered to Menopausal women to assess the Biopsychosocial Problems. Each respondent had taken 15-20 minutes during the procedure of data collection.

Plan of data analysis: Analysis was done according to the objectives of the study. Descriptive and inferential statistics was used to do the analysis.

MAJOR FINDINGS

Findings related to socio demographic variables:

Majority of 37 (37.00%) menopausal women were in age group 56-60.

Maximum 38 (38.00%) menopausal women had studied up to primary level.

Most of 93 (93.00%) menopausal women were married.

Majority of 95 (95.00%) menopausal women had unskilled occupation.

Majority of 58 (58.00%) menopausal women had monthly income ≤ 10,000.

Highest 81 (81.00%) menopausal women belonged to nuclear family.

Majority of 60 (60.00%) menopausal Majority of 100 (100.00%) menopausal women husbands were aware about their spouse menopause state.

Most of 69 (69.00%) menopausal women had never used hormonal replacement therapy in the past.

Highest 62 (62.00%) menopausal women had never physician check-up for menopause.

Majority of 100 (100.00%) menopausal women had never used any alternative therapy for menopause.

Highest 78 (78.00%) menopausal women had information from family & friends/ relatives.

Findings related to assessment of Biopsychosocial problems among menopausal women:

The mean Biopsychosocial problems score was 14.29.

Maximum of 74 (74.00%) Menopausal Women had mild Biopsychosocial Problems and least 26 (26.00%) women who had moderate Biopsychosocial problems.

Findings related to area wise assessment of Biopsychosocial problems among menopausal women: Maximum of Menopausal women had psychological problems with mean score 7.27 followed by biological problems with mean score 6.16 and social problems with mean score 0.86.

Finding related to association between Biopsychosocial problems with their selected socio demographic variables: Selected socio demographic variables i.e. hormonal replacement therapy and physician check-up for menopause had impact on Biopsychosocial problems among menopausal women.

CONCLUSION

The mean Biopsychosocial problems score was 14.29.

Maximum of 74 (74.00%) Menopausal Women had mild Biopsychosocial Problems and least 26 (26.00%) women who had moderate Biopsychosocial problems. Selected socio demographic variables i.e. hormonal replacement therapy and physician check-up for menopause had impact on the Biopsychosocial problems among menopausal women.

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Effectiveness of Planned Teaching Program Regarding Genital Tract Infection During Pregnancy on Knowledge among ANC Mothers

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ABSTRACT

A quasi experimental study to assess the effectiveness of planned teaching programme on knowledge regarding genital tract infection during pregnancy on knowledge among ANC mothers admitted in maternity unit of selected hospitals was conducted at Bharati Vidyapeeth Deemed (to be) University College of Nursing, Sangli.

Research design was used quasi experimental research design. The sample constitute of 60 ANC mothers from maternity unit of selected hospitals. Selected samples were given structured knowledge questionnaires to evaluate the effectiveness of PTP on knowledge regarding genital tract infection during pregnancy among ANC mothers. The tool is divided into two sections:

Section 1: Demographic variables

Section 2: Structured knowledge questionnaires

The content validity was determined by 23 experts from the department of nursing. The test re-test reliability method was used & tool was found reliable.

There was significant association between pre-test knowledge score of chi-square value of the age in years is 11.432 and for number of parity 7.937 respectively. Reminders i.e area of residence, qualification, gestational age in weeks does not showed significant association with pre-test knowledge score.

The present study was conducted to assess the effectiveness of planned teaching programme on knowledge regarding genital tract infection during pregnancy on knowledge among ANC mothers admitted in maternity unit of selected hospitals. Quasi experimental research design was adopted for this study. The sample comprised of 60 ANC mothers from maternity unit of selected hospitals. Samples were selected using simple random sampling technique. Selected samples were given structured knowledge questionnaires to evaluate the effectiveness of PTP on knowledge regarding genital tract infection during pregnancy among ANC mothers. Data collection was done using structured knowledge questionnaires.

Even though the study showed that there was significant difference in the knowledge score after planned teaching programme . There was significant association between pre-test knowledge score of chi-square value of the age in years is 11.432 and for number of parity 7.937 respectively. Reminders i.e area of residence, qualification, gestational age in weeks does not showed significant association with pre-test knowledge score. So the researcher concluded that planned teaching program was found to be effective.

Keywords: *Planned teaching programme , Genital tract infection, ANC mothers*

INTRODUCTION

Reproductive tract infections (RTIs) are a global health problem including both sexually transmitted infections (STIs) and non-sexually transmitted infections (non-STIs) of the reproductive tract. The risk of RTIs in pregnant women includes post aborted and puerperal sepsis to fetal and perinatal deaths.

Reproductive tract infections (RTIs), including both sexually transmitted infections (STIs) and non-sexually transmitted infections (non STIs) of the reproductive tract are responsible for major ill health throughout the world.[1]

WHO estimates that each year there are over 340 million new cases of sexually transmitted infections in which 75-85% occur in developing countries. In India alone, 40 million new cases emerge each year.[2]

RTIs are due to endogenous organisms, iatrogenic organisms and sexually transmitted organisms. Endogenous RTI are widespread among pregnant women, mainly due to overgrowth of organisms normally present in the vagina, as a result of hormonal changes. They can be readily treated, if not, they cause women varying degrees of discomfort from local irritation to pelvic inflammatory disease (PID). The consequences of RTI in pregnant women includes post abortal and puerperal sepsis, fetal and perinatal deaths, ectopic pregnancy, chronic pelvic pain, emotional distress and risk of HIV transmission.[3]

RTI in many cases are asymptomatic among women, making their detection and diagnosis difficult. Considering the often asymptomatic nature of RTIs among women, laboratory findings remain the most accurate method of biomedical diagnosis of RTI.[4]

MATERIAL AND METHOD

An experimental research design was adopted for this study. The study was in maternity units of selected hospitals, Sangli city. The sample comprised of 60 ANC mothers. Sample was selected using simple random sampling technique. Data collection was done using structured knowledge questionnaires and data was analyzed using descriptive and inferential statistics.23 experts did the content validity of the tool. The experts were selected from various fields based on the topic.

PROCEDURE FOR DATA COLLECTION

After obtaining the necessary permissions from the concerned authorities and informed consent from mothers, the investigator collected necessary data.

The data collected in three phases.

Pre intervention phase: Phase I- Demographic data were collected from ANC mothers.

Intervention phase: Phase II- In this, structured knowledge questionnaires were used.

Post intervention phase: Phase III: The knowledge score of was assessed with the help of post-test score of ANC mothers.

DISCUSSION

This chapter presents a summary and conclusion of the study, as well as its implications for nursing and health care services followed by its limitations. The present study has been under taken to assess the effectiveness of planned teaching programme on Genital Tract Infection during pregnancy on knowledge among Antenatal Mothers admitted in maternity units selected hospitals.

The findings of the above table shows that maximum samples (49.2%) were from the age group of 20-25 years, 59% of samples studied till secondary education, 63.9% of samples were from second trimester(24 weeks of gestation) and 52.5% residing in rural area.

61.66 % having poor and 38.33% having average knowledge score in pretest and 38.33 % having average knowledge and 53.34% having good knowledge regarding genital tract infection during pregnancy in post- test. These findings show that the level of knowledge increases in the post test.

Mean of pre- test was found 9.59 with value -20.618, so it was found that tcal value was greater than table value P < 0.000. Mean of post- test was found 14.96 with value -20.618, so it was found that tcal value was greater than table value P < 0.000.

The figure findings shows that the 58.33 % having poor and 38.33% having average and 3.33 having poor knowledge score in pretest and 38.33 % having average knowledge and 53.34% having good knowledge

regarding genital tract infection during pregnancy in post- test. This finding shows that the level of knowledge increased in the post test.

CONCLUSION

Research design was used quasi experimental research design. The probability simple random sampling technique was used. The sample constitute of 60 ANC mothers from maternity unit of selected hospitals. Selected samples were given structured knowledge questionnaires to evaluate the effectiveness of PTP on knowledge regarding genital tract infection during pregnancy among ANC mothers. So the interpretation of the findings summarized that H_o is rejected and H_1 is accepted so planned teaching programme regarding genital tract infections during pregnancy on knowledge was effective.

Conflict of Interest: Nil

Source of Funding: Self funding

Ethical Consideration: Ethical committee letter were submitted to the Bharati vidyapeeth (to be Deemed) University, Pune and obtained permission from university to conduct the research. Permission from consent authority and ANC mothers were obtained before data collection.

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Measuring Nurses' Compliance with Safety Precautions for Patients in Intensive Care Units

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ABSTRACT

Aims: To investigate nurses' compliance with safety precautions in relation to patients in Intensive Care Units (ICUs). In addition, the study also aimed to measure the unit and hospital characteristics that determine the implementation of safety precautions for patients admitted to ICUs in Jordan.

Methodology: A sample of 184 patients who were admitted to ICUs were observed using a 17-item safety checklist that measured nurses' implementation of safety precautions such as raising the side rail, elevating the head of the bed, and applying elastic stockings.

Results: Nurses in our study demonstrated low compliance with some ICU safety precautions such as changing patient's position every two hours (40.2%), fixing the indwelling catheter to the bed (46.2%), and applying elastic stockings for immobilized patients (1.1%). In addition, factors such as admittance to the university hospital, being in a small ICU, and in a unit with a higher nurse-patient ratio were associated with higher nurses' compliance with ICU safety precautions.

Conclusion: This study demonstrated that there is some lack in applying safety precautions for patients admitted to the ICUs in Jordan. In addition, the study identified hospital and unit characteristics that are associated with higher compliance with safety precautions. Applying more educational programs and implementing more policies and maintaining more supervision are highly recommended.

Keywords: *Intensive care unit, patient safety, checklist.*

INTRODUCTION

Patient safety can be defined as the prevention of errors and adverse effects to patients associated with healthcare[1]. The focus on patient safety began with the release of the Institute of Medicine (IOM) report "To Err Is Human" in 1999. The report estimated that between 44,000 and 98,000 patients die annually from medical errors. This high number of deaths exceeded the number of deaths attributed to the eight major causes at the time.

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This report helped the healthcare system refocus on the importance of patient safety[1].

The Intensive Care Unit (ICU) is a specialized area of a hospital that provides comprehensive and continuous care for patients who are critically ill. Maintaining patient safety is becoming a crucial objective for nurses in ICUs. ICU patients are more prone to experiencing medical errors because they are seriously ill and require continuous supervision. Their care is more complex than that required by other hospital patients because of the advanced medical technology, coordination between the multiple healthcare providers, and administration of many medications required[2].

Many studies have investigated the main adverse events that patients could experience in the ICU. For instance, in 2006 an international study of 205 ICUs found that, among 1,913 patients studied, 136 patients suffered from medication errors; 158 patients complained

about inappropriate disconnection of lines; 47 patients had an obstruction or leakage of an artificial airway; and 17 patients complained about inappropriately turned-off alarms. The study highlighted the need for the development and implementation of strategies for prevention and early detection of errors[3].

Although globally many studies have been conducted about patient safety in ICUs, no studies have been conducted to measure this phenomenon in Jordan. The goals of this study were to investigate nurses' compliance with safety precautions for Intensive Care Unit (ICU) patients. In addition, the study aimed to measure unit and hospital characteristics that determine the implementation of safety precautions for patients admitted to ICUs in Jordan.

MATERIAL AND METHOD

Design: A cross-sectional and observational study design was used.

Settings and Sample: The study was conducted in four public hospitals and one university hospital in Jordan. The author used G*Power software to calculate the sample size. Taking into account a medium effect size (0.02) and four independent variables produced a total sample of 72 patients to achieve a reliable equation. However, to make our sample more representative, 184 patients were included from different ICUs such as medical ICU, surgical ICU, neuro ICU, and cardiac ICU.

Instrumentation: The checklist used in this study was developed based on previous safety ICU checklists [4-6]. The final checklist included patient demographics and unit characteristics. In addition, there was a 17-item checklist that measured different safety precautions that should be used for all the patients in an ICU. Each item has a "yes" or "no" answer or "not applicable". The checklist included nursing safety precautions such as raising the side rail, elevating the head of the bed, applying elastic stockings, switching on all alarms, changing patient's position every two hours, and fixing indwelling catheters (if any), etc. The checklist was reviewed several times by the research team to ensure comprehensiveness and accuracy.

Data collection and analysis: The principal investigator conducted a two-hour training session with three data collectors on how to fill out the checklist. All data collectors hold a master's degree in nursing science and have previous clinical and research experience. After the training session, the data collectors visited the ICUs during the day shifts to observe patients at different times of the day. Patients in the units were included after consent forms from them or from their families were obtained. The data collectors completed the checklist once for each patient in the unit.

Data analysis was conducted using SPSS version 21 (IBM Corp., Chicago, Illinois). The answer "no" was assigned a score of 0 and "yes" was assigned a score of 1. The total scores of the 17 items were accumulated to produce the final safety precaution scores. A higher total score means more nursing compliance with safety precautions. Multiple linear regression analysis was used to identify all unit and hospital characteristics that significantly predict the implementation of nursing safety precautions for ICU patients. Alpha value of 0.05 was considered as a cutoff point for significant results.

Ethical considerations: Approval from the Institutional Review Board (IRB) of the researcher's university and those of the hospitals was obtained. No names or any personal identifications were obtained from patients. All checklists were kept at the researcher's office and nobody else has access to them.

RESULTS

According to sample characteristics, the majority of the patients are old ($M = 57.1$, SD= 19.2), male ($N = 104$, 56.5%), admitted to the medical ICU unit ($N = 112$, 60.9%), on a ventilator ($N = 124$, 68.4), and on the ward for more than two weeks (see Table 1).

Table 1: Patients' characteristics (N = 184)

Age Mean (*SD*)	57.1 (19.2) years
Length of Stay (*M, SD*)	14.5 (9) days
Gender n (%)	
Male	104 (56.5)
Female	80 (43.5)
Diagnosis	
Medical	112 (60.9)
Cardiac	28 (15.2)
Surgical	10 (5.4)
Nero-surgical	5 (5.2)
Orthopedic	6 (3.3)
Ventilated	
No	60 (32.6)
Yes	124 (68.4)

Table 2 shows that nurses are more compliant with some basic safety precautions such as putting the patient safely on the bed ($n = 176$, 95.7%), connecting all electrodes to the patient's body ($n = 182$, 98.9%), and elevating the side rails ($n = 168$, 91.3%). However, nurses were less compliant with other safety precautions such as changing the patient's position every two hours ($n = 74$, 40.2%), fixing an indwelling catheter to the bed ($n = 85$, 46.2%), closing a ventilated patient's eyes ($n = 78$, 42.4%), and applying elastic stockings for an immobilized patient ($n = 2$, 1.1%).

Table 2: ICU safety checklist

		No (n, %)	Yes (n, %)	NA (n, %)
1.	Tidy bed	26 (14.1)	158 (85.9)	-
2.	Position change Q 2hrs	90 (48.9)	74 (40.2)	20 (10.9)
3.	Patient setting safely	25 (25.8)	176 (95.7)	-
4.	Air mattress inflated	50 (27.2)	134 (72.8)	-
5.	All electrodes connected	2 (1.1)	182(98.9)	-
6.	All alarms on	53 (27.8)	131 (71.2)	-
7.	Side rails elevated	16 (8.7)	168 (91.3)	-
8.	Identity bracelet	40 (21.7)	144 (78.3)	-
9.	Hand antiseptic close to patient	28 (15.2)	156 (84.8)	-
10.	Gloves close to patient	26 (14.1)	158 (85.9)	-
11.	All lines are dated	32 (17.4)	152 (82.6)	-
12.	Dressing on catheters	38 (20.7)	146 (79.2)	-
13.	Head of the bed elevated	33 (17.9)	151 (82.2)	-
14.	Oral care performed/suction	37 (20.1)	147(79.9)	-
15.	Indwelling catheter correctly fixed	12 (6.5)	85 (46.2)	87 (47.3)
16.	Elastic stockings applied	138 (75)	2 (1.1)	44 (23.9)
17.	Eyes closed	44 (23.9)	78 (42.4)	62 (33.7)
	Note: NA: not applicable			

The results of the regression analysis including the four independent variables were significant ($R^2 = .22$, F (4. 184) = 12.63, $p < 0.001$). Our model explained 22.2% of the variance in nurses following safety precautions for ICU patients. According to our results, hospital type, number of beds, and nurse-patient ratio were significant predictors for nurses' compliance with safety precautions in the ICUs. For example, hospital type and nurse-patient ratio were the strongest predictors of whether nursing safety precautions would be followed ($B = -.57$, P < .001 and $B = .36$, P < .001 respectively). This means nurses tend to use more safety precautions in the university-affiliated hospital and in units with a high nurse-patient ratio. In addition, nurses are more compliant with safety precautions inside smaller ICUs ($B = .19$, P = .016). However, type of ICU unit was not significantly associated with nurses' implementation of safety precautions (see Table 3).

Table 3: Predictors of nurses' safety precautions used for ICU patients

Factors	B	Std. Error	Beta	t	Sig.
Pubic vs University Hospitals	-2.304	.572	-.414	-4.031	.000
No. of beds	1.788	.358	.339	5.000	.000
Nurse/patient ratio	.471	.193	.267	2.434	.016
Medical vs other ICU	.035	.032	.096	1.099	.273
Note: p is significant at ≤ .05					

DISCUSSION

Nurses demonstrated low compliance with some safety precautions applied to ICU patients. For example, nurses were less compliant with some safety precautions such as changing the patient's position every two hours, fixing an indwelling catheter to the bed, and applying elastic stockings for an immobilized patient. These safety precautions are very important because they reduce the possibility of the adverse events that are associated with an ICU stay. For example, changing the patient's position every two hours will reduce the incidence of bed ulcers [7], fixing the indwelling catheter will reduce hospital-acquired urinary tract infection [8], and applying elastic stockings will reduce the incidence of deep vein thrombosis among ICU patients[9].

A large portion of patient safety depends on the healthcare system more than on the individuals who work in it [10]. Nurses want suitable working conditions, adequate training, fair workload, and a safe environment in order to follow hospital policies and guidelines[11]. For instance, nurses should have a reasonable workload that reduces the chance of medication administration error [12]; safety equipment such as the availability of sharps disposal and infection control equipment should be provided to prevent the spread of infectious diseases among ICU patients [13, 14]; and hospitals should have in-service education programs to ensure nurses are adequately educated about safety practices[15]. After providing all the necessary work factors that promote patient safety and prevent possible medical errors, hospitals should supervise nurses in order to make sure no violation of safety precaution occurs.

The organizational factors associated with low compliance with safety precautions in the ICU were: patients being admitted to the university-affiliated hospital, in a unit with a smaller number of beds, and in a unit with a higher nurse-patient ratio. Similarly, Stone, Mooney-Kane [16] found that organizational factors such as higher staffing were associated with a lower incidence of central line infection, ventilator-associated pneumonia, 30-day mortality rate, and bed sores. In addition, overtime was associated with a higher rate of catheter-associated urinary tract infection, and bed sores. Neuraz, Guérin [17] found that when the nurse-to-patient ratio in the ICU exceeded 2.5 the risk of patient mortality rate increased by 3.5 times.

One strategy to improve nurses' compliance with safety precautions is to educate them about different safety precaution strategies. For example, quality and safety education for nurses (QSEN) addresses the problem of preparing nurses with the safety competencies necessary to improve the quality and safety of the healthcare system. Nurse students during their study should be taught about safety competencies such as patient-centered care, teamwork and collaboration, evidence-based practices, safety, quality improvement, and informatics[18]. In addition, nursing administration should make safety education a part of their strategic planning. For instance, Pronovost, Weast [19] found that safety culture was improved after implementing of safety education program (from 35% to 52% in the medical ICUs and from 35% to 67% in the surgical ICUs). Furthermore, patient length of stay decreased from two days to one day in the medical ICUs and from three to two days in the surgical ICUs. Medication errors were nearly eliminated.

Another strategy to improve compliance is introducing a real-time safety checklist. Cozzi, Maloney [20] found that implementing the safety checklist improved nurses' compliance with safety precautions such as removing out-of-date urinary catheter, applying protective skin barrier, and initiating prophylaxis to deep vein thrombosis. However, the study did not find a significant difference in removal of restraint. In addition, the incidence of urinary tract infection and the incidence of bed sores were reduced.

STRENGTHS AND LIMITATIONS

This study has several strengths. Using an observational method of data collection gives a more reliable source of data. In addition, including patients from different ICUs and with different medical diagnoses makes the study more generalizable to other ICUs. However, using a convenience sample may limit the generalizability of this study.

CONCLUSION

This observational study assesses nurses' compliance with safety precautions and associated factors in the ICUs. Nurses showed low compliance with some safety precautions in the ICUs such as changing patient position every two hours, implementing elastic

stockings, and closing ventilated patients' eyes to prevent corneal damage. Increasing the number of nurses and decreasing the nurse-patient ratio would help to improve nurses' compliance with safety precautions. In addition, applying more educational programs, implementing more policies and increasing the level of supervision are the main recommendations proposed.

Consent: Author declares that 'written informed consents were obtained from the patients or families.

Source of Founding: Self-funding

Conflict of Interests: Author has declared that no conflict interests exist.

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Productivity of Nursing Faculty in Selected Nursing Institutes, Bangalore, Karnataka

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ABSTRACT

Introduction: Quality Education is the foundation to building a competent health workforce which is central in achieving universal health coverage. In support of this vital cause, the World Health Organization and its partners have compiled the core competencies for Nurse Faculty / Educators to improve nursing education and, ultimately, the quality of nursing services. The core competencies highlight that Faculty should do a lot more than just teach and evaluate students. Out of Classroom Faculty Activity like Research, Collaboration, Partnership, Advocacy and Leadership should also be focused upon. This will determine their productivity. Hence faculty productivity embraces a great deal more than that can be captured in a student credit hours taught per faculty.[1]

Research Designs & Method: A Non-experimental descriptive research design was chosen for assessing the productivity of Nursing faculty. The instrument used for data collection were Demographic Variables Performa, 3-Point Likert Scale to assess the Individual Faculty Productivity Level (IFPL), Modified Faculty Scholarly Productivity Index (FSPI) quantitatively evaluated Out of Classroom Faculty Activity in addition to teaching workload, Checklist to assess the institutional contribution towards the productivity of individual nursing faculty.

Result: 90% of the faculty rated themselves to have high level Individual Faculty Productivity contrary to the findings of the Faculty Scholarly Productivity Index which showed that 52% faculty had poor productivity and 48% had moderate productivity. This study reveals that nursing faculty did not understand the broader perspective of Productivity and should be motivated to participate in Out of Classroom Faculty Activity which enhances professional development and improves the quality of teaching & practice.

Keywords: Productivity, Teaching Work load, Out of Classroom Faculty Activity

INTRODUCTION

Improving and maintaining the competencies of Nurse Faculty requires keeping pace with shifting health care expectations, new technologies and rapidly expanding evidence based health services.[1] These challenges reinforce the claims that research should contribute to teaching. Research forms the basis of the content of teaching. Teachers who are active researchers are more likely to be on the cutting edge of their discipline and aware of international perspective in their field. Research enhances teaching through introduction of new topics and methodologies. It can also be argued however that teaching and the research activity are antagonistic in a way that unsatisfactory class performance might result from academicians neglecting their teaching responsibilities in order to pursue research and publication. Thus, a balance and interdependence of Teaching , Collaboration & Research Activities will make a Faculty more productive.[4]

Measuring and managing faculty productivity has become one of the most significant controversial policy issues in higher education. There is no generally accepted definition of faculty productivity. Defining it as a number of classes or courses taught, number of credit hour generated or number of students taught is really defining **teaching workload**, which some equate with faculty productivity. Workload traditionally captures how time is spent while Productivity is a measure of what is produced with that time.[2] This study aims to measure productivity of Core Competencies including **teaching Workload and Out of Classroom Faculty Activity** in terms of Community Participation, Research

Activity, CNE's & Workshops Organized / attended and number of books authored contributing to Professional development.[1]

OBJECTIVES

1. To assess the Individual Faculty Productivity Level (IFPL) of Nursing Faculty

2. To evaluate Faculty Scholarly Productivity Index(FSPI) of Nursing Faculty

3. To assess the level of Institutional contribution towards productivity of Nursing Faculty

4. To correlate between Individual Faculty Productivity Level (IFPL) and Faculty Scholarly Productivity Index.(FSPI)

5. To correlate between Institutional Contribution and Individual Faculty Productivity Level (IFPL)

HYPOTHESIS

H_1: There will be significant relationship between Faculty Scholarly Productivity Index (FSPI) and Individual Faculty Productivity Level (IFPL)

H_2: There will be significant relationship between Institutional Contribution And Individual Faculty Productivity.

RESULTS
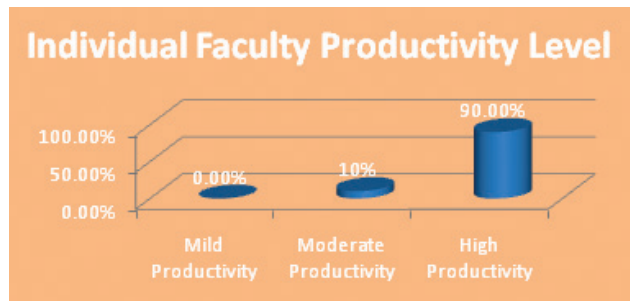
Fig. 1: Individual Faculty Productivity Level (IFPL) of Nursing Faculty

Fig 1. shows that majority of faculties, 90% rated themselves to have high level of productivity and 10% of the faculties have moderate productivity. (3 point Likert's Scale to assess the Individual Faculty Productivity Level (IFPL) Self Rating Tool)
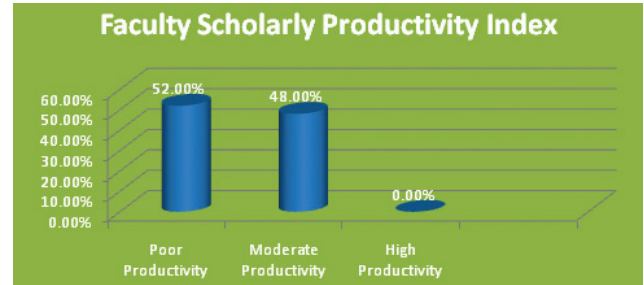
Fig.2: Level of Faculty Scholarly Productivity Index (FSPI) of Nursing Faculty

Fig. 2. Suggests that 52% of faculty have poor productivity index, and 48% of them have moderate productivity index. (Modified Faculty Scholarly Productivity Index (FSPI) Interview Schedule)
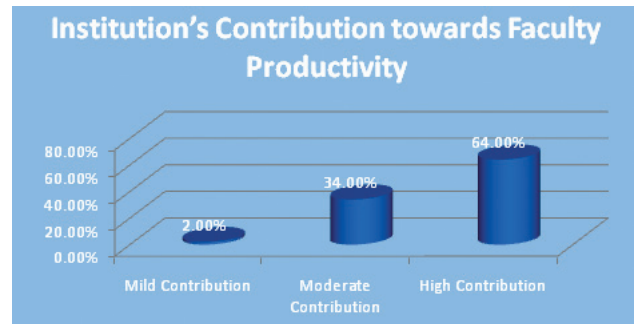
Fig. 3: Level of Institutional contribution towards productivity of Nursing Faculty

Fig. 3. Depicts that about 64% of the faculty stated that institutional contribution towards Faculty Productivity was high, 34% moderate contribution and 2% stated mild contribution of institution in individual faculty productivity. (Checklist to assess the Institutional Contribution towards the productivity of nursing faculty)

Table 1: Correlation Between Individual Faculty Productivity Level And Faculty Scholarly Productivity Index

Variables	Mean	SD	Pearson's value	Inference
Individual faculty productivity	45.5	10.87	0.362	low positive correlation
Faculty Scholarly Productivity Index	37.52	5.88		

Table 1 show that there is Low Positive Correlation between the Individual Faculty Productivity Level (IFPL) of Nursing Faculty & Faculty Scholarly Productivity Index (FSPI) of Nursing Faculty.

Table 2: Correlation between Institutional Contribution and Individual Faculty Productivity

Variables	Mean	SD	Pearson's value	Inference
Individual faculty productivity	67.36	6.957	-0.142	Negative very low correlation
Institutional contribution	19.44	3.118		

Table 2 reveals Negative very low co-relation between institutional contribution and individual faculty productivity.

DISCUSSION

90% of the faculty rated themselves to have high level Individual Faculty Productivity contrary to the findings of the Faculty Scholarly Productivity Index which showed that 52% faculty had poor productivity and 48% had moderate productivity. This reveals that nursing faculty equated Teaching Workload to Faculty Productivity and rated themselves likewise, whereas Faculty Scholarly Productivity Index (FSPI) quantitatively evaluated Core Competencies (Out of Classroom Faculty Activity in addition to teaching workload) with evidence. Hence, there was a low positive correlation between the Individual Faculty Productivity Level (IFPL) & Faculty Scholarly Productivity Index (FSPI) of Nursing Faculty. This reveals that nursing faculty did not understand the broader perspective of Productivity and should be motivated to participate in Out of Classroom Faculty Activity which enhances professional development.

Also majority of the faculty (64%) have rated high institutional contribution to productivity but there was a Negative very low co-relation between institutional contribution and individual faculty productivity. Hence, Institution's Contribution is to be enhanced and performance appraisals, promotions, incentives are to be based upon Faculty productivity.

CONCLUSION

Continuous improvement and ongoing professional development are expected for all nurses. Moreover, Nurse Educators or Faculty have to develop core competencies which is a prerequisite to attaining high standards in Nursing Education and Nursing Practice.[1] Core competencies measured by Faculty Scholarly Productivity Index is often used as an index of departmental and institutional prestige and is strongly associated with an individual faculty member's reputation, visibility and advancement in academics. Hence, this study forms the basis for educating and motivating the Nursing faculty to be more productive which facilitate the transference of competencies to new generation nurses and enhancing the quality of health services.[3]

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Lifestyle of Women Attending Infertility Clinic of a Tertiary Hospital in Puducherry: A Pilot Study

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ABSTRACT

Background: Lifestyle comprises numerous components that interact with one another to make a person. The paradigm of lifestyle plays a major role in the concept of health-disease continuum, including infertility. Practicing appropriate lifestyle may counter the status of infertility in the women and may help them realize their wish to have a child.

Aim: The purpose of this study was to assess the lifestyle and its association with demographic factors of women with infertility.

Method: A descriptive cross-sectional study was done on 30 women with infertility attending the infertility clinic at JIPMER Hospital, Puducherry. The women were selected by systematic random sampling method. Data were collected using a socio-demographic proforma, infertility profile and the lifestyle assessment inventory which included 10 components namely – Physical, Alcohol and other Drugs, Nutritional, Social, Spiritual, Emotional, Stress Control, Intellectual, Occupational and Environment. Descriptive statistics including frequency, percentage, mean and standard deviation were used to analyze the data.

Results: Women had scores ranging in the below average lifestyle category in six of the ten components and in both physical wellness and nutrition component, 8 (27%) of the women needed improvement. The only component in which women had scores ranging in excellent lifestyle was environmental wellness among 14 (47%) of them. 15 (50%) women had overall scores ranging in average lifestyle.

Conclusion: Lifestyle an important determinant of (reproductive) health is largely based on a person's attitude and behavior. Therefore women need to be made aware about the appropriate lifestyle choices.

Keywords: Lifestyle, Infertility, Women with infertility, Internal consistency

INTRODUCTION

The health of an individual greatly depends on one's day to day activities and behaviour that can be altogether fit into the umbrella term "Lifestyle". The paradigm of lifestyle plays a major role in all the concept of health-disease continuum, including infertility. Lifestyle is defined based on certain behavioural patterns produced by the interactions between personal characteristics, social relationships, environmental conditions and socioeconomic situations. MacDonald and Thompson (2005) introduced the dimensions of lifestyle as nutrition, exercising, self-care, smoking, consumption of alcohol and illegal drugs, social relations and control of stress.[1] The younger generation especially women delay the child birth for reasons such as education or giving importance to one's career, thereby compromise their procreation capacity.

The World Health Organization (WHO) estimate of 2004 says 8% - 12% (60 to 80 million) couples worldwide, suffer from infertility, and in India it is between 3.9 and 16.8 per cent.[2] A prevalence of 12.6 was seen for primary infertility in a study in Mysore and maximum cases were reported from academicians, advocates, accountants, bank workers.[3] The unexplained

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reason for infertility was observed in 35% of the infertile couples who came for treatment.[4] Evidence from many studies suggests that increase in age of both the men and women, has adverse effect on the time taken to conceive. Among 1000 pregnant women it was seen that 71% of the women below 30 years of age conceived in less than 3 months whereas in those women who were above 36 years of age only 41% of them conceived.[5] Lifestyle factors such as nutrition, physical activity, exercise, obesity, use of recreational substances which are all modifiable have impact on fertility. The time to pregnancy was sevenfold longer in women with more than 4 negative lifestyle variables and their conception probabilities dropped by 60%.[6]

METHOD

The descriptive cross-sectional (pilot) study included 30 women with infertility, attending the infertility clinic of JIPMER hospital, India, to assess their lifestyle and identify factors that may influence their fertility. On obtaining approval from JIPMER IRB and IEC committee, the women were selected by systematic random sampling during December 2016 and January 2017. Women aged 21 – 40yrs, who have not adopted a child and had no significant physical or mental illness were selected for the study. They were explained the purpose of the study and written consent was obtained before administering the questionnaire. The questionnaire included socio-demographic profile of the women and their spouse, the infertility profile of the couple and lifestyle assessment inventory which included ten questions in each of the 10 components namely – Physical, Alcohol and other Drugs, Nutritional, Social, Spiritual, Emotional, Stress Control, Intellectual, Occupational and Environment.

The lifestyle assessment inventory developed in 2009 by David J. Anspaugh, Michael H Hamrick, and Frank D Rosato was modified according to the ethnic population under study.[7] The life style is graded as Excellent, Good, Average, Below Average and Needs improvement. The participants were administered the questionnaire by the researcher over a 20 minutes duration. The researcher also clarified doubts of the participants and thanked them for their co-operation.

The content validity of the lifestyle assessment inventory was ascertained by expert opinion of three nursing personnel and two medical personnel. The internal consistency of the inventory was determined using test-retest method after pilot study on 30 women with infertility. The Cronbach's alpha correlation coefficient (r) was 0.91. The data were analyzed using statistical software SPSS version 20. The demographic characteristics, infertility profile and lifestyle of the women with infertility were described with descriptive statistics including frequency, percentage, mean and standard deviation.

RESULTS

The women were aged between 22 to 37 years with mean age of the women being 28.9 years. The level of education was secondary level and above in 25 (80%) of them. In respect to nature of occupation, 14(40.6%) of the women and among their spouses 27 (90.6%) were involved with some or the other known contributing factors for infertility. Most of the women 18 (56.3%) lived in nuclear family. Majority of them 27 (87%) were in non-consanguineous marriage with only 7 (23%) of them having family history of infertility.
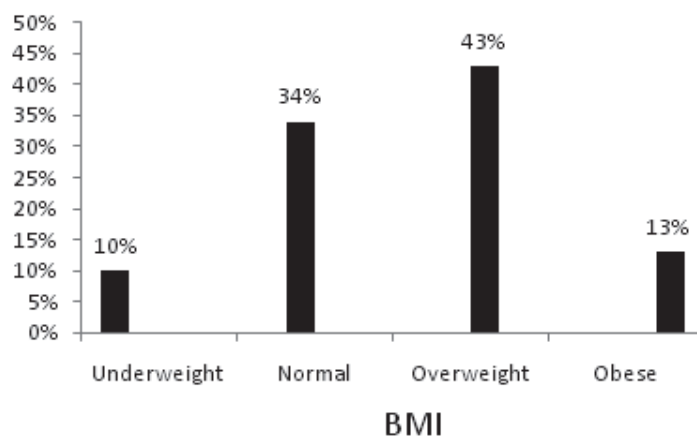
Fig. 1: BMI of the women with infertility

Figure 1 depicts that only 10 (34%) of women had BMI in the range of 18 – 24(normal) whereas **13(43%)** of the women had BMI between 24 – 30 (overweight), **4(13%)** had greater than 30 (obese) BMI value and 3 (10%) were with less than 18 (underweight).
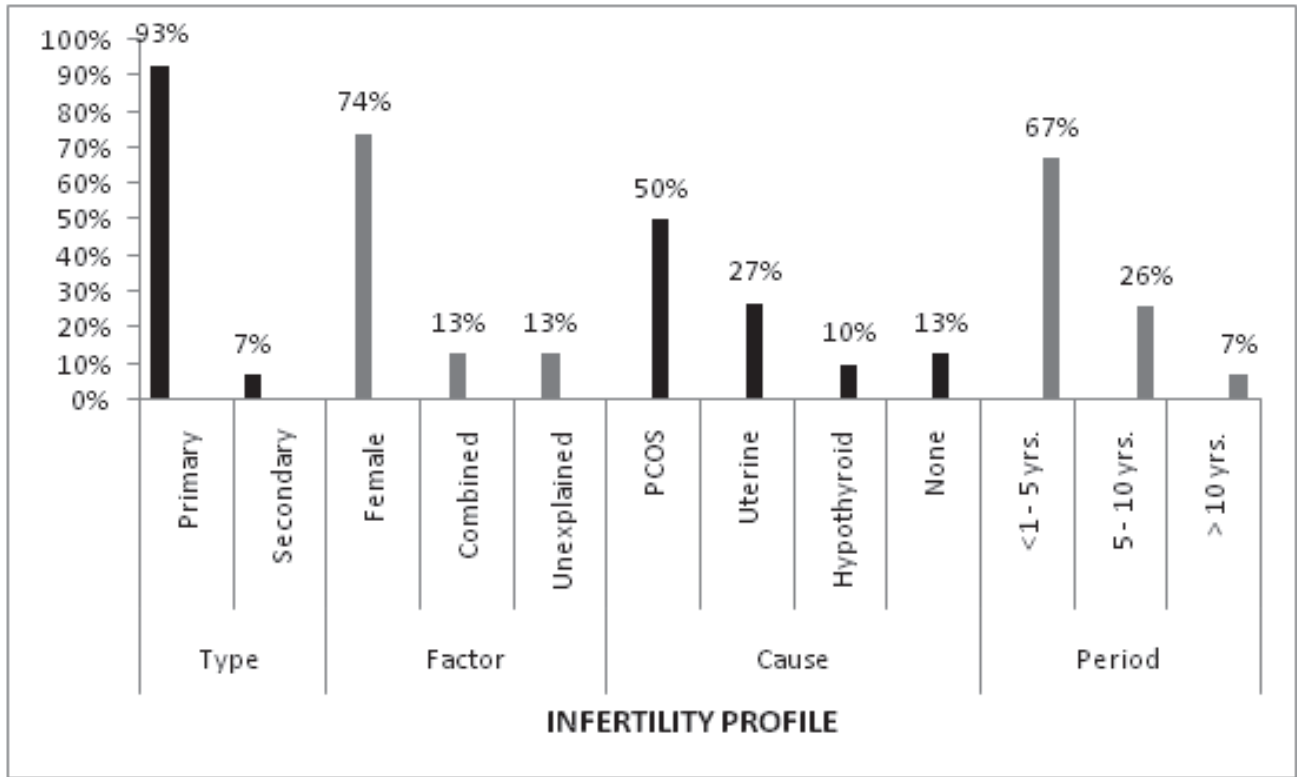
Fig. 2: Infertility profile of the women with infertility

Figure 2 shows that the majority of the women, 93% (28) were affected with primary infertility. Female factor was the commonest factor in about74% (22) of the women and PCOS was the cause among 50% (15) of the women and hypothyroidism and uterine anomalies each were the cause in about 13% (4) of them. Period of infertility was less than 5 years in 67% (20) of them.

Table 1: Distribution of subjects (N = 30) based on the scores of lifestyle components

Wellness Domains	Excellent		Good		Average		Below Average		Needs Improvement		Mean	Standard Deviation
	No.	%	No.	%	No.	%	No.	%	No.	%		
Physical	0	0	1	3	3	10	18	60	8	27		
Alcohol & other Drugs	10	33	18	60	1	3	0	0	0	0		
Nutrition	0	0	2	7	4	13	16	53	8	27		
Social	2	7	6	20	8	27	10	33	4	13		
Spiritual	2	7	12	40	8	27	7	23	1	3		
Emotional	0	0	8	27	11	37	8	27	3	10	66.7	8.392
Stress Control	0	0	4	13	3	10	22	73	1	3		
Intellectual	2	7	5	17	7	23	13	43	3	10		
Occupational	2	7	6	20	9	30	11	37	2	7		
Environmental	14	47	9	30	4	13	3	10	0	0		
Overall	0	0	4	13	15	50	10	33	1	3		

Excellent (90 – 100), Good (75 – 89), Average (65 -74), Below Average (45 – 64) & Needs improvement (0 – 44).

Table 1 lifestyle assessment showed that more than three fourth of the women needed improvement in two of the components namely physical wellness and nutrition. The mean lifestyle score was 66.7 with a standard deviation of 8.392. Six components had below average lifestyle score, stress control component was greatly affected in 22 (73%) of the women, followed by physical wellness among 18 (60%), nutrition in 16 (53%), intellectual wellness among 13(43%), Occupational wellness among 11 (37%) and social wellness among 10 (33%). Scores ranging in the good lifestyle category was seen in alcohol & other drugs and spiritual component among 18 (60%) and 12 (40%) of the women respectively. The only component where the women showed excellent score was of environment wellness among 14 (47%) of them.

DISCUSSION

Based on the results of this pilot study the mean age of the women was 28.9 yrs which is concurrent with the survey conducted by International Institute for Population Sciences, Mumbai reporting that infertility was seen more in women above the age of 25 yrs[8] and another study in Mysore showed 25.9 yrs of mean age among the women seeking treatment.[3] In respect to nature of occupation, 14(40.6%) of the women and among their husband 27 (90.6%) were involved with some or the other known contributing factors for infertility. The commonest being dust & smoke (pollution, a reason for low sperm count[9]) followed by mental stress in both and shift work among the husbands.

In regard to the type of marriage only 3 (13%) had consanguineous marriage and presence of family history of infertility was seen in only 7 (23%) of the women

Most of the women 20 (66%) were having BMI below 18 or above 24.0 kg/m^{2} which is known to increase the relative risk of ovulatory infertility.[10] Further this study also found PCOS being the most common15 (50%) cause of infertility among the women studied. This is supported by evidence on risk factors of PCOS being poor dietary habits and inactivity.[11&12] Majority of the women, 93% (28) were affected with primary infertility and female factor was the commonest factor in about74% (22) of the women. Though worldwide female causes accounted for between 25 to 37 percent[13]

the high frequency in this study could be due to data collected in infertility clinic attached to the Obstetrics and Gynecology department of the hospital. Period of infertility was less than 5 years in 67% (20) of them.

As mentioned in a review on lifestyle factors and reproductive health, the common reasons among the women for poor nutrition was consumption of negligible amount of fruits and vegetables, excess of trans fat, preference to animal protein[9]. The present study also shows similar findings requiring the women to improve physical activity among 26 (86.6%) and nutrition among 24 (80%). The impact of physical activity and healthy nutrition is that it improves the ovarian reserve markers that are important causes of infertility.[14] These two components although modifiable however need great motivation to do so wherein the role of the nurse and the family members cannot be ignored. The mean lifestyle score was 66.7 with a standard deviation of 8.392. The other component which was greatly affected in 22 (73%) of the women was stress control. It is seen that important reason for stress is active avoidance.[15] Scores ranging in the good lifestyle category was seen in alcohol & other drugs and spiritual component among 18 (60%) and 12 (40%) of the women respectively which can be attributed to strong cultural connection of the women. The only component where the women showed excellent score was of environment wellness among 14 (47%) of them.

CONCLUSION

The results indicate that lifestyle modification is definitely required among the women who seek infertility treatment. There are enough prior evidences on potential to improve reproductive health through lifestyle modification. Any change is better said than done, therefore the women should be educated on promoting health through appropriate measures especially in physical activity, nutrition, stress control, improve awareness about infertility and its treatment.

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A Study to Assess the Effectiveness of Planned Teaching Program on Knowledge Regarding Diet For 3-5 Year Old Children among Mother

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ABSTRACT

Diet is very essential for growth and development of adolescent. Healthy eating habits is very important. There may be malnourishment and over nourished in same age group. The human body requires a certain amount of macro-nutrients such as energy, protein, fats and micro nutrients to maintain a good health. Lack of one or more of the above factors cause problems for an individual to lead a healthy life. Malnutrition defined as the insufficient, excessive or Imbalanced consumption of nutrients.[2]

Objectives: To assess the existing knowledge regarding diet.
To assess the effectiveness of planned teaching program on knowledge regarding diet.
To find out the association between pre test knowledge score with selected demographic variables.

Material and Method: Pre-experimental one group pre-test post-test design was conducted to assess the knowledge of mothers in the Anganwadis of Sangli, Miraj, and Kupwad corporation area. Total 100 Samples were selected by Non-probability cluster random sampling method. A Structured questionnaire of 24 items was administered to collect data. Pre-test was given on the 1st day followed with planned teaching and Post-test was administered on seventh day. The reliability coefficient 'r' of the questionnaire was 0.759, hence it was found to be reliable. The conceptual framework based on Modified Imogene Kings Goal Attainment Model (1981).

Result Result and Conclusion: .It was found that,58% mothers have poor knowledge score, 42% have Average knowledge score and none of mother have good knowledge score, In post-test knowledge score it was found that, 65% mothers have good knowledge score, 34% have average knowledge score, 1% have poor knowledge score This suggests that there is marked increase in post-test knowledge score, and planned teaching was effective. The chi-square computed between pre-test knowledge and selected variables showed that knowledge was not dependent on age, sex, qualification, experience and previous knowledge.

Keywords: Assess, Effectiveness, Planned teaching Programme , Knowledge.

INTRODUCTION

Malnourished children experience developmental delays, weight-loss and illness as a result of inadequate intake of protein, calories and other nutrients. Because orphaned and institutionalized children may experience one or several macronutrient and micronutrient deficiencies, they are at risk for a variety of short- term and long-term complication A child nutritional intake can have a great impact on their growth and development as well as their long term and short term health. Good nutrition is a fundamental requirement for positive health functional efficiency and productivity in children (MITRA of at 2006) A healthy balanced diet containing adequate of nutrients and energy is essential for normal growth and development and mental well being of children (THEOBALD HANNAH 2007) Mothers also likely to be more assertive and play a greater part in intra-family decision making in favor of their children needs.[2]

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REVIEW OF LITERATURE

The review of literature for present study is organized under the following headings:

1. Research Studies related to normal balanced diet for 3-5 year old children.

2. Research Studies related to nutritional deficiency disorder.

3. Research Studies related to Malnutrition and Protein energy malnutrition.

4. Research Studies related to Vitamin deficienc

MATERIALS AND METHOD

Research Approach: quantitative research approach

Research Design: Pre-experimental one group pretest-posttest design

Setting: Anganwadies of Sangli district area

Population: The population consists of Mothers of 3-5 yrs children.

Sample Size: The present study consisted of 100 mothers of 3-5 year child.

Sampling Technique: Probability simple random sampling is used.

RESULT AND DISCUSSION

The data was analyzed as per the objectives of the study i.e.

SECTION I

Table No. 1: frequency and percentage distribution of demographic variables n = 100

Variables	Frequency	Percentage
Age		
Below 20 years	27	27
21-30 years	44	44
31-40 years	22	22
Above 40 years	7	7
Education		
No Formal Education	22	22
Primary	78	78
Type of Family		
Nuclear Family	62	62
Joint Family	38	38
Religion		
Hindu	41	41
Muslim	30	30
Christian	22	22
Other	7	7
Family Monthly Income		
Below 5000	17	17
5001–10000	83	83

Table No. 2: Frequency and percentage distribution pre-test and post test knowledge score

n = 100

Grading	Pre test		Post test	
	Frequency	Percentage	Frequency	Percentage
Poor (0-8)	58	58	1	1
Average (9 - 16)	42	42	34	34
Good (17 - 24)	0	0	65	65

Table no. 2 shows that, 58% mothers have poor knowledge score, 42% have Average knowledge score and none of mother have good knowledge score. , 65% mothers have good knowledge score, 34% have average knowledge score, 1.% have poor knowledge score

Table No. 3: Comparison between pretest and posttest knowledge score

n = 100

TEST	MEAN	STD. DEVIATION	STD. ERROR MEAN	't' value	'p' VALUE
PRE TEST SCORE	8.70	1.98	0.0198	-23.645	0.00001
POST TEST SCORE	17.43	3.118	0.03118		

Table no.3 shows that, mean value of pre-test knowledge score is 10.71 and post-test knowledge score is 17.43.

SECTION 2

Association Between Demographic Variables With Pre-Test Knowledge Score: Indicates there is no significant association between age, type of family, religion, and family monthly income and pre-test knowledge. Thus it shows that there is no significant association between pre-test knowledge score and selected demographic variables.

CONCLUSION

Analysis and interpretation was done on 100 mothers, where Frequency and percentage distribution done for demographic variables. Effectiveness of planned teaching was done by comparing mean of pre-test and post-test knowledge score which showed that the planned teaching was effective and the association of selected demographic variables with knowledge score was done on calculated p value where it resulted that there was no significant association with the selected demographic variables.

Ethical Considerations: Ethical committee letter were submitted to the Bharati Vidyapeeth (to be Deemed) University, Pune and obtained permission from university to conduct the research. Permission from concerned authority and parent of each sample were obtained before data collection.

Conflict of Interest: Nil

Source of Funding: Self funding

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A Study to Assess the Effectiveness of Planned Teaching Programme on Knowledge Regarding Preventive Measures of Suicidal Behaviour among Junior College Students

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ABSTRACT

Suicide is a major public health problem. Suicide effects tragically to the loved ones. Suicide leaves behind a terrible effect on family members and friends even after long time the individual has taken their life.[1] Suicide rate of adolescence has increased in recent years.[2] Suicide is the 3rd leading cause of death among adolescence because of the great increase in the rate from 5% to 14% in age group of 15 to 24 years.[3]

Objectives:

- To assess the existing knowledge regarding preventive measures of suicidal behaviour.

- To assess the effectiveness of planned teaching programme regarding preventive measures of suicidal behaviour.

- To find out the association of pre test knowledge score with selected demographic variables.

Material and Method: Pre-experimental one group pre-test post-test design was adopted to assess the knowledge regarding preventive measures of suicidal behaviour among junior college students of Sangli, miraj, Kupawad corporation area. Total 95 Samples were selected by random sampling method. A Structured questionnaire of 20 items were administered to collect data. Pre-test was given on the 1st day followed with planned teaching and Post-test was administered on seventh day. The reliability coefficient 'r' of the questionnaire was 0.89, hence it was found to be reliable.The conceptual framework based on the general system theory, developed by Ludwig Von Bertalanffy (1968), with input, processes, output and feedback.

Result and Conclusion: Before giving planned teaching 53.68 % students had poor knowledge and 46.31% had average knowledge regarding preventive measures of suicidal behaviour. The post test showed that, 23.15% have average, 60% have good and 16.84% have excellent knowledge score. This suggests that there is marked increase in post-test knowledge score, and planned teaching was effective. The chi-square computed between pre-test knowledge and selected variables showed that there is association with age and sex

Keywords: planned teaching programme, preventive measures of suicidal behaviour, junior college students.

INTRODUCTION

The entire living organism in this earth fights for their survival and existence. Still people have much reason to risk their own life. Medical and legal fraternity always give importance to the tragedy of suicidal deaths. Person feels overwhelmed by their problems tries to end their life as they want to escape. They find that death is the only solution for handling their problems[4].

Suicide is the act of intentionally causing one's own death.[5] According to experts Michelle Moskos, Jennifer

Achilles, and Doug Gray, causes of suicidal distress include psychological, environmental and social factors. The leading risk factor for suicide includes mental illness. A fact sheet distributed by the institute of mental health in 2016 shows that depression, substance abuse and mental disorders are the most common risk factors for suicide. Above 90% of people who attempt suicide reveals these risk factors.[6]

Suicide prevention is the collective efforts of local organizations, health professionals and other

professionals to minimize the incidence of suicide. Methods to stop suicide includes treating the symptoms of depression, improving the coping ability of individual, reducing the risk factors for suicide, and giving them hope for a better future after resolving the current problem.[7]

Suicide is only preventable once committed it is no longer treatable. College students are vulnerable group attempting suicide. Recognition of risk factors and early intervention can prevent suicide and Adolescents should be more educated in the Pre-University College and teachers have a very important role to help the students in their emotional problems.[8]

REVIEW OF LITERATURE

The review of literature for present study is organized under the following headings:

1. Literature related to suicidal behaviour, causes, risk factors and its incidence in adolescence.

2. Literature related to preventive measures of suicidal behaviour

1. **Literature related to suicidal behaviour, causes, risk factors and its incidence in adolescence:** A research by Maria A. Oquendo, Hanga Gallfly and etall in 2016 on Positron Emission Tomographic Imaging of the Serotonergic System and Prediction of Risk and Lethality of Future Suicidal Behavior. 100 patients underwent PET scan. It is found that higher suicidal ideation when there is high RN serotonin binding potential. This effect may happen through less serotonin neuron firing and release. Which causes mood disorders and also suicidal ideation.[9]

2. **Literature related to preventive measures of suicidal behaviour:** Research done by N. Loganathan (2014) regarding Effect of STP on Knowledge regarding Risk and Prevention of Suicidal Behaviour among Adolescents. The mean pre test score was 9.9 and mean post tset score was 17.3. mean score shows significant difference in knowledge.p value is >0.05 shows statistically significance which means the structured teaching programme was effective in increasing knowledge regarding risk factors and prevention of suicidal behaviour among adolescents[10]

RESEARCH METHODOLOGY

Research Approach: In order to achieve the desired objective of the study a Quantitative research approach was adopted for this study

Research Design: The researcher selected pre experimental one group pre test post test research design for the study.

Variables: Independent Variable independent variable is planned teaching

Dependent Variable: In this study, the dependent variable is knowledge score

Setting: Dr. Patangarao Kadam Mahavidyalayam, sangliwadi, sangli was selected for the study.

Sample and Sampling Technique: The sample size was calculated by using power analysis. The present study consisted of 95 samples. Random sampling method is used in that lottery method is applied in selecting samples.

Reliability: The reliability of the tool done by using test retest method and the r value is calculated by using karl pearson's correlation coefficient formula. 'r' value was 0.89 which was more than 0.7 hence the tool found to be reliable

Pilot Study: The pilot study was conducted in high school and junior college, sangli to assess the feasibility of the study. After the pilot study, tool was found feasible, and gave better insight to the investigator.

PROCEDURE OF DATA COLLECTION

prior permission was taken from concerned authorities. Researcher visited the School and selected the samples as per criteria. Informed consent was taken from sample after explaining purpose and objectives of the study. 15 minutes pre-test was taken by structured questionnaire. 45 minutes planned teaching programme was given immediately after pre-test. Post-test was conducted on the 7th day of plan teaching programme.

DISCUSSION AND RESULTS

The mean pre test score is 6.21, and mean post test score is 11.9 ,.this shows increase in knowledge score during post test. .t value is -22.2 and p value is 0.0001

which is less than 0.05 shows significant difference in pre test and post test knowledge score. Association with age and sex is done by using chi square test. Chi square for age is 0.006 and chi square for sex is 0.01 which is <0.05. This shows significant association of age and sex with pre test knowledge score.

CONCLUSION

Analysis and interpretation was done on data collected from 95 junior college students, Frequency and percentage distribution of demographic variables were calculated. Mean knowledge score is compared to check the effectiveness of planned teaching programme which showed that the planned teaching was effective and the association of selected demographic variables with knowledge score was done on calculated p value where it resulted that there was significant association with age and sex

Conflict of Interest: Nil

Source of Funding: Self funding

Ethical Considerations: Ethical committee letter were submitted to the Bharati Vidyapeeth (to be Deemed) University, Pune and obtained permission from university to conduct the research. Permission from concerned authority and parent of each sample were obtained before data collection.

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Effectiveness of Non-Pharmacological Management of Anxiety for Patients Going for General Anaesthesia–A Literature Review

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ABSTRACT

This study describes different non-pharmacological measures to manage the anxiety for patients going for general anaesthesia. For this the objective is to identify the effect of non-pharmacological management for relieving anxiety for patients going for general anaesthesia.

For fulfilling this objective, I have searched many data sources like Pub Med, Google Scholar, Pro Quest, Cochrane Library, CINAHL (Cumulative index To Nursing & Allied Health Literature), MEDLINE (Medical Literature Analysis & Retrieval System Online), Science Direct.

All the searched literature review concluded that there are many non-pharmacological management like aromatherapy, meditation and yoga, music therapy, pranayama, massage therapy, guided imagery, reiki therapy, skin surface warming technique, acupressure, acupuncture, relaxation technique, etc.

Even though there are many non-pharmacological measures for anxiety, but through this research paper I want to find out that which therapy is most simple, easy, safe and non-invasive to reduce the anxiety and can be used in the hospital as a daily basis without much expenses and special setting for it.

***Keywords:** Assess, effectiveness, Non-pharmacological management, anxiety, patients, general anaesthesia*

INTRODUCTION

"Man is not worried by real problems so much as by his imagined anxieties about real problems"

Epictetus

Anaesthesia is defined as a health practice that makes the patient unaware of their surroundings during a surgical procedure and aims to relieve the patient's intolerable pain during the surgical procedures.[1]

To some, the thought of general anaesthesia strikes terror in their hearts more than the thought of the actual surgical experience. Some anxious patients might even choose to cancel their operations just because of the fears of undergoing general anaesthesia.[1]

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Varying levels of anxiety may generate due to factors like, cultural diversity, type of surgery, previous anaesthesia experience, and preoperative information.[2]

There are some different types of therapies used for reducing the effect of anxiety before administration of the general anaesthesia.[3]

MATERIAL METHOD AND FINDINGS

The study is mainly headed on the non-pharmacological management of anxiety of patients going for general anaesthesia.

Fayazi S., Mehdi R. (2011) conducted a quasi-experimental clinical trial study on the effect of inhalation aromatherapy on anxiety level of the patients in preoperative period on candidate for thorax and abdominal surgery at Ahvaz. 72 patients purposively selected and divided in case and control groups. The Spielberger scale was used. Twenty minute of inhalation containing lavandula was used in the case group and placebo (water) in control group. The average of anxiety

level in inhalation aromatherapy group decreased from 51.00 to 38.61 from before to after the intervention. This average in the inhalation group with placebo was decreased from 50.67 to 49.53 from before to after the intervention. So inhalation aromatherapy was effective on reduction of anxiety level.[4]

Cheng-Hua Ni, Wen-Hsuan Hou, et al (2012) conducted a randomized controlled trial on the anxiolytic effect of aromatherapy on patients awaiting ambulatory surgery admitted at Taiwan. 109 patients were selected and exposed to the experimental (bergamot essential oil aromatherapy) or control (water vapor) condition for thirty minutes and they completed the STAI a second time and vital signs were again recorded. The median changes in STAI, heart rate, systolic blood pressure (SBP), and diastolic blood pressure (DBP) were -3.0 ($P < 0.001$), -6.0 beats/min ($P = 0.015$), -11.0mmHg ($P < 0.001$), and -5.0mmHg ($P = 0.012$). No significant changes were observed in the control group ($P > 0.05$).The STAI score decreased in the bergamot group more than control group (-4.0 versus -1.0, $P = 0.005$). Aromatherapy is useful as a holistic approach in reducing preoperative anxiety before ambulatory surgery.[3]

Usha K., Suruchi L., et al conducted a Prospective Randomized Control Study on The Role of Rajyoga Meditation for Modulation of Anxiety and Serum Cortisol in Patients Undergoing Coronary Artery Bypass Surgery. 150 patients were randomized in Group 1 (Rajyoga group) and Group 2 (Control Group). Anxiety was measured on a visual analog scale. On the 2nd postoperative day (T3), the patients who underwent Rajyoga training had lower anxiety level in comparison to the control group (3.12 ± 1.45 vs. 6.12 ± 0.14, P < 0.05) and on the 5th postoperative day (T4) it was seen that Rajyoga practice had resulted in significant decline in anxiety level (0.69 ± 1.1 vs. 5.6 ± 1.38, P < 0.05). Mindbody intervention is found to effective in reducing the anxiety of the patients undergoing coronary artery bypass surgery.[5]

Raghavendra Rao, Nagaratna Raghuram, et al (2000-2004) conducted a randomized controlled trial on Effects of a Yoga Program on Mood States, Quality of Life, and Toxicity in Breast Cancer Patients Receiving Conventional Treatment in Bangalore. 69 Stage II and III breast cancer patients underwent surgery followed by adjuvant radiotherapy (RT) or chemotherapy (CT) or both were randomly assigned to receive yoga (n = 33) and

supportive therapy counseling (n = 36) over a 24-week period. Intervention consisted of 60-min yoga sessions, daily while the control group was imparted supportive therapy during their hospital visits. A state-trait anxiety inventory, Beck's depression inventory, symptom checklist, common toxicity criteria, and functional living index cancer were used. An ANCOVA showed a significant decrease for the yoga intervention as compared to the control group during RT (first result) and CT (second result), in (i) anxiety state by 4.72 and 7.7 points. It suggests yoga is beneficial in breast cancer patients undergoing conventional treatment.[6]

Maryam M., Mohsen T., Hamidreza G., Alireza F. (2015) conducted a double- blind randomized controlled trial on the effect of sukha pranayama on anxiety in patients undergoing coronary angiography at Iran. 80 patients were randomly allocated to a control and an experimental group. Before undergoing angiography, patients in the experimental group performed sukha pranayama exercises whereas control group only received routine pre-angiography care. A demographic questionnaire and the Spielberger State Anxiety Inventory are used. The data were analyzed by the independent-sample t and the chi-square tests. Before the intervention, the mean of anxiety score in the experimental group was 53.37, which decreased to 40.75 after the intervention (P = 0.0001). In the control group, the mean of anxiety score decreased from 54.27 to 51.4. So, Sukha pranayama is effective in alleviating CA candidates' anxiety.[7]

Nazari R., Ahmadzadeh R., Saeid M., Jafar Rafiei K. (2010) conducted an interventional study on the Effects of hand massage on anxiety in patients undergoing ophthalmology surgery using local anesthesia at Iran. 52 patients were randomly selected and divided into two groups, who received hand massage before surgery (n=27) and control (n=25). A Spielberger State-Trait Anxiety Inventory is used and data was analyzed by chi-square, independent samples t-test, and paired t-test. There were no significant differences in mean anxiety, systolic blood pressure, diastolic blood pressure, heart rate and respiratory rate between the two groups before the intervention (p>0.05). However, there was a significance difference in the mean stress level between the two groups after the intervention (p<0.05). The two groups did not differ significantly in terms of physiological variables (p>0.05). Findings suggested that hand massage before ophthalmology surgery could reduce anxiety.[8]

F. Moradipanah, E. Mohammadi, A.Z. Mohammadi conducted a randomized controlled trial on Effect of music on anxiety, stress, and depression levels in patients undergoing coronary angiography at Iran. 74 patients conveniently selected. Before angiography, descriptive statistics showed that the pre-intervention mean scores were similar in the music intervention group and the control group for anxiety [6.83 (SD 4.14) versus 6.81 (SD 4.29)]. The post-intervention mean scores after the music intervention were lower in the music group than the control group for anxiety [4.13 (SD 3.81) versus 6.10 (SD 3.71)]. The group received the music intervention experienced a decrease in stress, anxiety and depression levels before undergoing cardiac angiography.[9]

Meltem Vizeli Dogan, Leman Şenturan conducted an experimental study on the effect of music therapy on the level of anxiety in the patients undergoing coronary angiography at Istanbul. 200 patients were selected. The study group (100 patients) listened to music throughout the intervention, while the control group (100 patients) not listen the music. It was found that the difference between the mean state anxiety scores obtained before and during the coronary angiography were significantly higher in the study group (4.04 ± 1.15) than the control group (2.01 ± 0.10) (p = 0.000). Music therapy affected the intra-operative anxiety level of the patients.[10]

M Jong, A Pijl, H de Gast, M Sjoling conducted a pragmatic multi-centre randomized controlled study on the effects of guided imagery on preoperative anxiety and pain management in patients undergoing Laparoscopic Cholecystectomy. 95 patients were selected. The GI group was provided with a CD to practice guided imagery once a day, 7 days prior to surgery. Control group received standard care instructions only. No significant differences were observed in anxiety and postoperative VAS scores. Twenty-three percent of patients did exercises 1-3 times, 65% 4-7 times and 12% >7 times. Within GI group analysis showed significantly less postoperative morphine use upon better compliance to GI exercises (p=0.02). Guided Imagery seems to reduce postoperative pain medication and anxiety.[11]

Ann Linda B., Anne V., Elise B., Elizabeth K., William R. (2007) conducted a blinded, controlled pilot study on effects of Reiki on Pain, Anxiety, and Blood Pressure in Patients Undergoing Knee Replacement at USA. 46 selected and one group of participants received three or four 30-minute Reiki treatments plus standard of care (SOC) throughout their hospital stay; a second group received three or four 30-minute Sham Reiki sessions (placebo) plus SOC; and a third group received 3 or 4 sessions of "quiet time" plus SOC. For all groups, the first session was to be 1 hour prior to surgery, with subsequent sessions 24, 48, and 72 hours. Only the Reiki group demonstrated reduced State Anxiety scores at discharge compared with intake (39.1 ±3.3 vs 32.1 ±2.7 [n =14], P=.004, power =0.88). The corresponding results for the Sham Reiki and SOC groups were: 42.2 ±3.3 (SEM) versus 37.4 ±2.4 (n =10) (NS), and 42.6 ±3.6 (SEM) versus 40.3 ±4.5 (n =6) (NS). Reiki group showed the largest reduction in state anxiety 48 hours after surgery. So Reiki is effective in reducing pain and anxiety.[12]

O. Kimberger, U. Illievich, R. Lenhardt (2005) conducted an interventional study on the effect of skin surface warming on pre-operative anxiety in neurosurgery patients in USA. 80 patients were randomly allocated to four groups. Treatment was applied for 30–45 min with (1) passive insulation and placebo; (2) passive insulation and intravenous midazolam (30 lg.kg-1); (3) warming with forced-air and placebo; and (4) warming with forced-air and intravenous midazolam (30 lg.kg-1). Thermal comfort levels (VAS 0–100 mm) and anxiety levels (VAS 0–100 mm, Spielberger State-Trait Anxiety Inventory) were assess twice: before the designated treatment was started and before induction of anaesthesia. In the midazolam and the midazolam / warming groups, anxiety VAS and Spielberger state anxiety scores decreased by -19 (95% CI: - 29 to - 9, p < 0.01) and - 10 (95% CI: - 14 to - 6, p < 0.01), respectively. In the warming and the combined groups, thermal VAS increased by + 26 (95% CI: 17–34, p < 0.01). The results indicate that pre-operative warming can be reduce the anxiety.[13]

Doreen Wagner, Michelle Byrne, Katharine Kolcaba conducted an experimental design on Effects of Comfort Warming on Preoperative Patients in USA. 126 patients were selected as population. The treatment group experienced greater reduction in NVAS anxiety scores compared to the control group (t = 2.77, P = .007). The control group did not experience a significant reduction in anxiety scores (t = 0.790, P = .431). The relative change in both the NVAS thermal comfort (t = 0.047, P = .963) and TCI (t = 0.913, P = .363) were not

significant. Findings suggest that comfort warming is a positive intervention for temperature management and anxiety reduction.[14]

Mansoorzadeh KH, Afazel MR, Taghadosi M, Gilasi HR, conducted a double blind clinical trial on the effect of acupressure on anxiety and dysrhythmia in patients undergoing cardiac catheterization at Iran. 70 patients were randomly divided into experimental group and control group. There was a significant difference between the level of VAS anxiety of angiography blade and its level immediately after the patients entered the angiography ward and before they were injected medication (p<0.001). There was no significant difference between the two groups regarding dysrhythmia (angiography blade and immediately after entering the angiography ward, p=0.2) and (angiography blade and before injecting medication, p=0.6). Acupressure had positive effect on reduction of anxiety and tachycardia.[15]

Shu-Ming Wang, Carol Peloquin, Zeev N. Kain, conducted a randomized, blinded, control on the use of auricular acupuncture to reduce preoperative anxiety at US. 91 elective ambulatory surgery patients were randomized into three groups: Traditional Chinese Medicine group (TCM), relaxation group and control group. Post hoc analysis with one-way ANOVA demonstrated no difference in STAIS scores among the groups before intervention (47 ± 11 versus 46 ± 12 versus 45 ± 13, P = not significant). The Scheffe test for multiple comparisons has demonstrated that patients in the Relaxation group were significantly less anxious compared with patients in the Control group (P = 0.01). The anxiety of patients in the TCM group did not differ significantly from those in the Control group (P = 0.28) or in the Relaxation group (P = 0.37).[16]

CONCLUSION

The study suggests that there are multiple pharmacological strategies for managing anxiety. However, anxiolytic medications have different side effects, as well as the likelihood of developing drug dependence. So the best way to reduce anxiety is the non-pharmacological management. As a benefit it can also promote patients' comfort through enhancing stress threshold, regulating the internal processes of the body, and boosting immunity.

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A Comparative Study to Assess the Effectiveness of Open Tracheal Suction System and Closed Tracheal Suction System on Physiological Parameters

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ABSTRACT

A comparative study was conducted to assess the effectiveness of open tracheal suction system and closed tracheal suction system on physiological parameters among the mechanically ventilated patients at critical care unit of sangli city. A non experimental quantitative (descriptive) research design was used in this study. Forty patients on mechanical ventilation attending from the previous setting were included in the study.

Observation checklist was used. One tool was divided into two parts used in this study open tracheal suction system and closed tracheal suction system, data were obtained firstly by using a socio-demographic data form of patients, the second is the clinical patient's data and the third part is an assessment tool for physiological parameters heart rate, Respiration rate, blood pressure and O2 saturation in three consecutive times for three days.

Study shows that there is significant difference in Heart Rate and Blood Pressure in open tracheal suction system as the p value is less than 0.05 and there is no significant difference in Respiration Rate and Oxygen rate as P value is more than 0.05. Shows that there is significant difference in Heart Rate, Blood Pressure Respiration Rate and Oxygen rate in closed tracheal suction system as the p value is less than 0.05.

Keywords: *Open tracheal suction system, close tracheal suction system, physiological parameters, mechanical ventilation*

INTRODUCTION

Advanced technology creates an intensive amendment in treatment and care of critically unwell patients by exploitation new strategies of treatment and competent nursing workers.[1] Mechanical ventilation is confirmatory therapeutic modality accustomed assist patients World Health Organization area unit unable to take care of adequate natural action and carbonic acid gas elimination.[2,3] Endotracheal suctioning (ES) may be a procedure performed to get rid of secretion from the patient's airway that aspirated through a suction tubing placed proximal to the secretions inserted through the mouth or nose, cartilaginous tube stoma, a surgical operation tube, or catheter.[4,5]

It is essential and regularly procedure for patients requiring mechanical ventilation, that frequently clean and suction the synthetic airway to take care of ventilation, give optimum natural action, avoid accumulation of secretions that cause tube occlusion, accumulated work of respiration, diminished pathology, and pneumonic infections.[6,7] The applied math records in Tanta Main University Hospital reported that concerning 920 patients admitted to anesthetic care unit from 2014-2015, concerning seventy fifth of those patients on mechanical ventilation and quite eightieth of them want suction. Nowadays about 7% of patients need post-operative care in social unit. Since the most drawback of those patients is that the system a respiratorium, so endotracheal

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cannulation and mechanical ventilation area increasing in these units.[8-10] Building up these artificial airway prompts increment bodily fluid incitement and creation. In spite of the fact that endotracheal tube suction is a gadget to expel discharges and keep the air way open, it causes numerous complexities, a portion of the early difficulties of suctioning are; changes in heart rate, pulse, breathing and oxygen rate and different complications as aggravations hypoxemia ,microbial contamination of air way and condition and advancement of ventilator-associated pneumonia .[11]Hypoxia came about because of suction puts weight on cardiovascular framework and prompt tachycardia, dysrhythmias, increase blood pressure, increase breathing quality and in the end cyanosis and dizeness. In this way, surveying vital signs in endotracheal tube suctioning is fundamental for controlling and averting more genuine complications.[12-14] Impact of Open versus closed tracheal Suctioning system.

RESEARCH METHODOLOGY

Research approach: Quantitative approach

Research design: Non-Experimental research

Variables:

Independent variable: Closed tracheal suction & open tracheal suction

Dependent variable: Physiological parameters

Research setting: Critical care units of sangli district hospital.

Population: Patients on mechanically ventilator

Sample: patients available at the time of data collection

Sample selection criteria:

Inclusive criteria:

　　Patients admitted in critical care units

　　Patients on mechanical ventilator

Exclusion criteria:

　　Patient Admitted in critical care units without mechanical ventilator .hypertensive patient

Sample size: patients available at the time of data collection

Plan for data collection: Permission will be obtained from the concerned authority from different hospitals of sangli district.

　　Written informed consent will be taken from the study participants

　　The patients who are available on mechanical ventilator at the time of data collection will be taken for study.The investigator will check the effectiveness of the procedure by using observation checklist

　　Comparison will be done from the both experimental group

Procedure of the Data Collection: After obtaining the necessary permissions from the concerned authorities and Subject will be selected according to the sampling criteria. After Informed consent from the relatives of the patients, investigator will collect data. The data will be collected in two phases.

Phase I: Demographic data was collected from mechanically ventilated patients.

Phase II: Data will be collected by using observational checklist and Assessment of physiological parameters 30seconds before, during and 30 after suctioning 10-15 minutes were taken for collecting the data from each sample. Average 2-3 samples were got each day. The samples were observed continuously Assessment of physiological parameters 30seconds before, during and after suctioning

DISCUSSION

　　Tracheal suction is a somewhat continuous and basic technique in patients under mechanical ventilation. There are reports that every patient experiences suction from 8 to 17 times each day. During method the tracheal discharge is expelled to guarantee sufficient oxygen supply and to keep away from obstacle of the tube lumen, bringing about expanded respiratory work, atelectasis and aspiratory contaminations.

　　This study Shows that there is significant difference in Heart Rate and Blood Pressure in open tracheal suction system as the p value is less than 0.05 and there is no significant difference in Respiration Rate and Oxygen rate as P value is more than 0.05. Shows that there is

significant difference in Heart Rate, Blood Pressure Respiration Rate and Oxygen rate in Closed tracheal suction system as the p value is less than 0.05.

In the patients who underwent mechanical ventilation where divided into two different groups as open and closed tracheal suction system to know the effect on physiological parameters. So it was found that there is significant difference in Heart Rate and Blood Pressure in open tracheal suction system as the P value is less than 0.05 and there is no significant difference in Respiration Rate and Oxygen rate as in closed tracheal suction system P value is more than 0.05. Shows that there is significant difference in Heart Rate, Blood Pressure Respiration Rate and Oxygen rate so by this study we got to know that comparatively closed suction is effective than open tracheal suction system.

CONCLUSION

This study evaluated the effects of the open tracheal and closed tracheal suction system on physiological parameters like heart rate, oxygen saturation, respiration rate, and blood pressure in patients who underwent endotracheal intubation and found that open tracheal suction system have effect which returned to initial values after the procedure. Thus, the H1 hypothesis was rejected.

In the patients who underwent mechanical ventilation where divided into two different groups as open and closed tracheal suction system to know the effect on physiological parameters. So it was found that there is significant difference in Heart Rate and Blood Pressure in open tracheal suction system as the P value is less than 0.05 and there is no significant difference in Respiration Rate and Oxygen rate as in closed tracheal suction system P value is more than 0.05. Shows that there is significant difference in Heart Rate, Blood Pressure Respiration Rate and Oxygen rate so by this study we got to know that comparatively closed suction is effective than open tracheal suction system.

Conflict of Interest: Nil

Source of Funding: Self funding

Ethical Consideration: Research proposal with data collection tool were presented in front of ethical committee for getting permission were taken from concerned Authority.

The name of the participant and data were kept confidential. The Participation will be voluntary. Participant can skip the study even after consent was given.

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Food Safety Awarenessand Practices among Women in Selected Areas of Suklagandaki Municipality

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ABSTRACT

Background: Food is an important basic necessity which is essential for health and wellbeing of humans. Therefore, ensuring safe food handling and preparation is of paramount importance so the present study was conducted with the aim to examine knowledge and practice related to food safety among women responsible for preparing food at the home level

Method: A Community based descriptive survey study was carried out in the Suklagandaki Municipality over a time period from April 1st, 2018 to April13th, 2018 with sample of 110 women. Data was collected by using Demographic Performa, Structured Knowledge questionnaire on food Safety and Practice questionnaire on food safety practices. Each question consists of 30 items. Data collection technique was face-to-face interviews. Data entry and analysis was done using SPSS version 19.Both Descriptive and inferential Statistics was used for data analysis. Permission was taken from Chief Executive of Suklagandaki Municipality.

Results: The research findings revealed majority 61.8 % heard food safety from television and radio. All of the participant 100% response washing hand is important aspect of food safety .only 30.0% response correct answer for raw eggs can have bacteria but 86.4% Cook meat and egg thoroughly. Almost half 51.8% of the participants response correct answer for item Chopping board should be washed with soap and water after cutting raw meat .More than half 58.4% response correct answer for item Checking expiry date before purchasing food but 58.2 always practice for this item.

Conclusion: Study findings shows though they have good knowledge in some item they does not follow while practice so the study conclude food safety education should be launched to women and repeated at specific intervals to ensure that learnt information is put into the daily life practices.

Keywords: Food Safety awareness, Practices, Women

INTRODUCTION

Food handlers play a vital role in ensuring food safety throughout the procedure of food preparation. It was estimated that millions of people become ill each year and thousands of them die after consuming contaminated foods due to poor food handling and safety methods of food handlers.[1]Food borne diseases are an important cause of morbidity and mortality worldwide with significant public health impact. The global burden of food borne diseases in 2010 was 33 million Healthy life years lost (DALY) with about 600 million food borne illnesses and 420,000 deaths, of which food borne diarrhoeal diseases, the most frequent cause of food borne illnesses contributed about 230,000 deaths.[2,3]Although the public is increasingly concerned about food-related risks, the rise in food poisoning cases suggests that people still make decisions of food consumption, food storage and food preparation that are less ideal from a health and safety perspective .[4]Diseases that people get from eating contaminated food are an important cause of illness, disability and deaths around the world, as revealed by the first ever WHO Estimates of the Global Burden of Food borne diseases published in December 2015. Food borne diseases-especially those caused by bacteria, viruses, parasites and fungi- are preventable, and education in safe food handling is a key measure for prevention, including to contain

antimicrobial resistance.[5] The proportion of cases arising from food preparation practices in the home may be especially under- represented in outbreak statistics, due to many factors.[6]because the opportunities for cross- contamination in the domestic kitchen are vast. It can be either direct (i.e., direct contact with potential sources, such as raw food, pets) or indirect (i.e., transfer of pathogens from a source via a vehicle to another food) . [7]Inappropriate temperature, such as inadequate refrigeration and inadequate cooking, reheating or hot holding, was involved in 44% of the outbreaks investigated. Inadequate handling was reported in 14% of the investigated outbreaks, mostly resulting from cross contamination, inadequate processing, insufficient hygiene and reusing leftovers.[8]

METHOD

A community based descriptive survey study was conducted among 110 female respondents who were the handlers of the food at home .one eligible women from each house was included in the study to attain a Convenient Sample from Dhorphirdi ,shuklagandaki Municipality of Tanahu district. The study was conducted in April 1st, 2018 to April[13th], 2018.Inclusion Criteria included for respondent those who are willing to participate ,age above 18 years female who are living in selected area, handling the kitchen of the respective selected house and those who are available at the time of study. Based on World Health Organization five main keys to safer food, which include keeping clean, separating raw and cooked food, cooking thoroughly, keeping food at safe temperatures, and using safe water and raw materials questionnaire was developed.

Demographic information (e.g.,age, education level, occupation, number of family members, monthly income per month, type of family, heard about food safety and Source of information. There were 30 items to assess the respondents' knowledge of food safety. Response to each item was "Correct", "Incorrect" and Not sure. There were 30 items to assess the respondents' practice toward food safety. Each item was assessed using Always, Sometimes, and Never. Tool was translated into Nepali and back-translated it into English. This was done by Subject expert with a good knowledge of English and Nepali. Data entry and analysis was done using SPSS version 19.Both Descriptive and inferential Statistics was used for data analysis.

RESULTS

Table 1: Demographic Characteristics of the Participant (n = 110)

Demographic Variables	Frequency	Percentage
Age		
18-25	8	7.3
26-33	17	15.5
34-41	32	29.1
42-49	53	51.8
Religion		
Hindu	96	87.3
Buddhist	12	10.9
Others	2	1.8
Educational Status		
Can read & write	49	44.5
Primary	15	13.6
School leaving certificate	38	34.5
Certificate or more than that	8	7.3
Occupation		
Housewife	44	40.0
Teacher	5	4.5
Farmer	44	40.0
Others	17	15.5
Number of family member		
2-3	9	8.2
4-5	67	60.9
More than 6	34	30.9
Monthly Income per month		
5000-10000	35	31.8
10000-15000	43	39.1
More than 16000	32	29.1

Half 51.8 % of the Participants was from age 42-49 years. Majority 87.3 were Hindu. Nearly Half 44.5% can read and write only. Nearly half 40% were housewife as well farmer. More than half 60.9 % were having family member 4-5 family members.39.1% were having income 10000-15000.
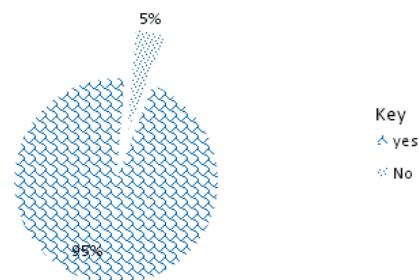
Figure 1: Hear about food hygiene

Most 95.5 participants heard about food hygiene.
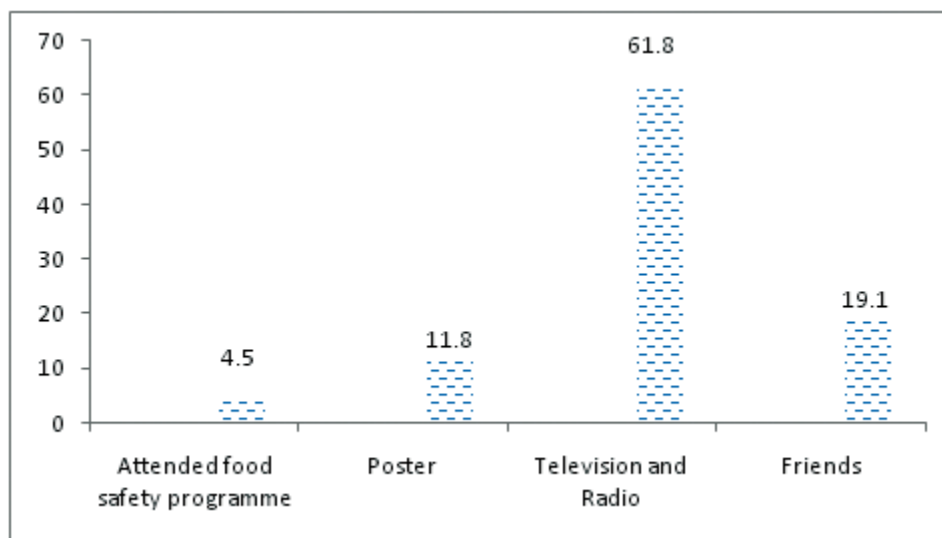
Figure 2: Source of Information

Majority 61.8 % heard food safety from Television and Radio.

Table 2: Food safety knowledge of among household respondents (n = 110)

Knowledge items	Correct f (%)	Incorrect f (%)	Don't know f (%)
hand washing is important aspect of food safety	110(100)	-	-
hand washing with Soap and water, rub hand for 20 sec rinse & dry	96(87.3)	5(4.5)	9(8.2)
Hand washing is necessary before handling cooked food	96(87.3)	7(6.4)	7(6.4)
Hand should be wash after blowing nose	97(88.2)	8(7.3)	5(4.5)
storing raw and cooked food in same self of fridge	66(60.0)	15(13.6)	29(26.4)
Ready to eat food are stored in top shelf of fridge with raw meat	23(20.9)	53(48.2)	34(30.9)
Leftover food should be heated in minimum temperature of 75.c	45(40.9)	23(20.9)	42(38.2)
Cooked food should be cool before keeping in fridge	58(52.7)	24(21.8)	28(25.5)
cooked food is left in room temperature for long time	74(67.3)	18(16.4)	18(16.4)
Raw eggs can have bacteria	33(30.0)	37(33.6)	40(36.4)
Hand washing should be done with soap and water after using toilet	93(84.5)	10(9.1)	7(6.4)
Raw meat always have microbes on the surface	55(50.0)	34(30.9)	21(19.1)
Healthy looking person also harbor germs to food	72(65.5)	24(21.8)	14(12.7)
green vegetables and fruits might have harmful microbes	56(50.9)	40(36.4)	14(12.7)
Smell and Taste can also decide food is good or not	79(71.8)	22(20.0)	9(8.2)
Preparation surface should be washed with hot soap and wipe with bleach regularly	73(66.4)	24(21.8)	13(11.8)
Fresh fruits should be washed with cool running water	82(74.5)	14(12.7)	14(12.7)
Chopping board should be washed with soap and water after cutting raw meat	57(51.8)	33(30.0)	20(18.2)
Freezing kills harmful bacteria	66(60.0)	25(22.7)	19(17.3)
personal Protective equipment have to use while cooking	62(56.4)	19(17.3)	29(26.4)

Conted…

Pasteurized milk is always safe to drink	64(58.2)	22(20.0)	24(21.8)
Egg have to boiled properly	68(61.8)	24(21.8)	18(16.4)
Expiry date is important to check while purchasing food	62(56.4)	23(20.9)	25(22.7)
Frozen meat have to keep in fridge until it is completely thawed	45(40.9)	36(32.7)	29(26.4)
Fridge have to clean thoroughly to prevent contamination	89(80.9)	12(10.9)	9(8.2)
Safe to leave perishable food out of fridge for more than 2 hours	57(51.8)	34(30.9)	19(17.3)
Bacteria can multiply rapidly in warm food	64(58.2)	31(28.2)	15(13.6)
cooking destroy bacterial toxin	95(86.4)	9(8.2)	6(5.5)
All waste food should be disposed off immediately	82(74.5)	17(15.5)	11(10.0)
Diarrhea, Dysentry,Typhoid will be caused by food	92(83.6)	4(3.6)	14(12.7)

All of the participant 100% response correct answer for washing hand is important aspect of food safety, 87.3% of the participant response correct answer for washing hand with Soap and water, 87.3% were aware hand washing is important before touching cooked food, 60.0% participant response correct for Putting raw and cooked food may be poisonous .More than half 52.7% response correct answer for item cooked food should be cool before keeping in fridge,84.5 response correct response hand washing should be done with soap and water after using toilet but 9.1% response Incorrect for this item.

Table 2: food safety practice among household respondents (n = 110)

Practice items	Always	Sometimes	Never
hand washing before cooking foods	103(93.6)	7(6.4)	-
hand washing with soap and water for 20 sec after touching raw meat	55(50.0)	39(35.5)	16(14.5)
hand washing before touching cooked food	86(78.2)	20(18.2)	4(3.6)
Thawing raw meat in refrigerator	37(33.6)	32(29.1)	41(37.3)
Using separate chopping board and knife for raw and cooked food	34(30.9)	23(20.9)	53(48.2)
Wearing Protective device while Preparing food	18(16. 4)	32(29.1)	60(54.5)
Cooking food while having diarrhoea	29(26.4)	44(40.0)	37(33.6)
Using separate shoe/slipper in kitchen	52(47.3)	37(33.6)	21(19.1)
Buying ready to eat food from Street vendor	21(19.1)	38(34.5)	51(46.4)
Changing kitchen towel regularly	53(48.2)	53(48.2)	4(3.6)
Cooking meat and egg thoroughly	95(86.4)	8(7.3)	7(6.4)
Storing food in a closed container for best protection	91(82.7)	15(13.6)	4(3.6)
Using safe water for cooking	82(74.5)	17(15.5)	11(10.0)
Leaving cooked food more than 2 hours in room temperature	29(26.4)	46((41.8)	35(31.8)
Using expiry date food	23(20.9)	16(14.5)	71(64.5)
Checking expiry date before purchasing food products	64(58.2)	36(32.7)	10(9.1)
Washing utensil, pan thoroughly before cooking	89(80.9)	13(11.8)	8(7.3)
Storing food 6 feet off the floor	55(50.0)	29(26.4)	26(23.6)
Smokes in the kitchen	21(19.1)	21(19.1)	68(61.8)
Disposing the waste from kitchen twice a day	49(44.5)	54(49.1)	7(6.4)
Heating the leftover food adequately	68(61.8)	31.8)	7(6.4)
Freezing the thawed food again	42(38.2)	48(43.6)	20(18.2)
Paying attention to the cleanliness of the meat shop while purchasing meat	62(56.4)	27(24.5)	21(19.1)

Conted…

Following the storage instruction on the food product	49((44.5)	38(34.5)	23(20.9)
Placing the left over in refrigerator not later than two hours of preparation	34(30.9)	47(42.7)	29(26.4)
Tasting the cooked food with fingers	32(29.1)	30(27.3)	48(43.6)
Cooking food sufficiently for only one meal	76(69.1)	26(23.6)	8(7.3)
Disposing waste food promptly	65(59.1)	25(22.7)	20(18.2)
Touching nose and mouth while preparing food	27(24.5)	26(23.6)	57(51.8)
Buying fish with eyes not prominent and bright	14(12.7)	23(20.9)	73(66.4)

Majority 93.6 % always wash hand before cooking foods, Half 50.0% of the participant always wash hand with soap and water for 20 sec after touching raw meat, 37.3% never Thaw raw meat in refrigerator, More than Half 54.5% never wear Protective device while Preparing food/Using mask and covering head.40.0% sometimes Cook food while having diarrhea. Nearly half of the participant 47.3% always use separate shoe/slipper in kitchen, nearly half of the participant 48.2% always / sometimes Change kitchen towel regularly. Majority 82.7 Store food in a closed contained for best protection. Nearly half of the participant 41.8% sometimes Leaves cooked food more than 2 hours in room temperature.38.2 % always/sometimes smokes in the kitchen. 49.1% sometimes dispose the waste from kitchen twice a day. 61.8 % always heat the leftover food adequately, 43.6% sometimes Freeze the thawed food again. More than half 56.4% always Pays attention to the cleanliness of the meat shop while purchasing meat.43.6 % never Taste the cooked food with fingers.69.1% always Cooks food sufficiently for only one meal. 66.4% never buy fish with eyes not prominent and bright.

DISCUSSION

Food safety has remained an important issue in developing and developed world, thus the WHO developed five main keys to safer food, which include keeping clean, separating raw and cooked food, cooking thoroughly, keeping food at safe temperatures, and using safe water and raw materials [9]. This study showed the food safety awareness and practices among household respondents of Nepalese community.

According to previous studies it was found Mitakakis et al., (2004) 46.6% did not wash their hands appropriately or in a timely manner, 41.7% mishandle raw food and 70.1% mishandle cooked food. Thus they concluded that preparing food at home increased the risk of diseases due to poor food handling practices .[10]which contradicts the present study as Majority 93.6 % always wash hand before cooking foods, Half 50.0% of the participant always wash hand with soap and water for 20 sec after touching raw meat.

A study conducted by Priyadarshini,V (2015) Concerning practicing personal hygiene, majority 84.5 4% of the women Wash hand before cooking foods .43.63 % the respondents mentioned that they use separate towels in kitchen for hand drying . 61.81% use the same cutting board for raw and cooked food" .[10]which support present study as 100% always /sometimes wash hand before cooking foods,48.2 % always use separate towels in kitchen for hand drying. 51.8% always /sometimes using the same cutting boards for raw and cooked food.

CONCLUSION

Study findings shows though they have good knowledge in some item they does not practice so the study conclude food safety education should be launched to women and repeated at specific intervals to ensure that learnt information is put into the daily life practices.

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A Narrative Review on Psychological Consequences of Traumatic Events

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ABSTRACT

Introduction: Research suggests that there are certain geographical areas where sizably voluminous populations are consistently exposed to immensely large-scale traumatic events such as wars, organized violence, terrorism, and natural disasters. Consequently the overall exposure to trauma worldwide may exceed rates antecedent as per the reports and data.[3]

Method: A systematic search was conducted with **PRISMA** guidelines. The search was completed by examining peer reviewed literature databases using PubMed, Research gate, Medline and identified potential studies for inclusion.

Results: A number of reports on psychological consequences were included in the review. Multiple disaster and traumatic studies were included in the review. The search identified 190 initial matches which were screened by inclusion and exclusion criteria. **Ten** full text studies in this narrative review confirm that traumatic events have a strong psychological effect on the victims.

Conclusion: The studies suggested that there is a high prevalence of PTSD after a terrorist attack or any disaster which emphasizes the need for improved health services to address the intermediate and long-term consequences of traumatic events. Besides that, the highest prevalence was found among survivors and first responders.[3]

Keywords: Traumatic events, disaster, psychological consequences, victims/survivors

INTRODUCTION

Severe mental disorders are often being neglected following a disaster. Traumatic events are often unpredictable, uncontrolled and can provide feelings of fear and anxiety. The Diagnostic and Statistical Manual of Mental Disorders (DSM-1V) defines a traumatic event as- witnessing such an event triggers fear, helplessness, or horror in response to the perceived or actual threat of injury or death to the individual or to another. These events are usually perceived by the individual to be life-threatening, unexpected and infrequent and are characterized by high intensity. (Ursano etal, 1994). The psychiatric illnesses such as PTSD are the more astringent outcome of traumatic events. Much of the literature has focused on PTSD because it is an apperceived and well-defined result of traumatic events. The traumatic events could be terrorism, natural and manmade disasters. [2]

There is a broad range of incidents that come in the category of traumatic events. The traumatic event is more

severe than a crisis and has most unpredictable onset. According to Meichenbaum, 1994, Type-I trauma includes rape, shocking accident, car accident or an earthquake and Type-II trauma is an incident with moderate to severe or long term characteristics and poor prognosis.

DEFINITION

According to American Psychological Association, trauma defines as a person's emotional response to an extremely negative or disturbing event.

DSM-III states trauma as a stressor that would be markedly distressing to almost anyone and is outside the range of usual human experience.

ICD-10 (WHO, 1992) PSTD arises from a delayed and or protracted response to a stressful event or situation (either short lived or long lasting) of an exceptionally threatening or catastrophic nature, which is likely to cause pervasive distress in almost anyone (e.g. natural or

manmade disaster, combat, serious accident, witnessing the violent death of others or being the victim of torture, terrorism, rape or other crime.)

Populations affected by humanitarian emergencies generally experience consequential gregarious and psychological suffering. Among the most vulnerably susceptible are people with pre-existing astringent severe mental disorders. In an emergency crisis, however, access to opportune mental health accommodations even more restricted. This is compounded by the fact that during a humanitarian emergency most agencies working for the mental health and psychosocial field fixate on endeavouring to address either the psychosocial environment or immediate traumatic responses. People more affected with these disorders are identified either by referral from medical teams or during group and individual counselling sessions.

In humanitarian emergencies, adults, adolescents and children are more prone or exposed to potentially traumatic events. These events trigger a wide range of cognitive, behavioural and somatic symptoms. Mental health disaster replication requires an understanding of the nature of the disaster and its impact on the individual. This includes the type and extent of the loss, cause and impact of the disaster. [2]

Need for the study: Little research is available on the long-term outcome of disasters, concretely for low-income population and countries. Mental health outcome is diverse in its nature, psychosocial concerns such as parental well-being, family functioning and quality of life and psychiatric disorders as well. [6] This information is important for directing, strengthening, and evaluating post tsunami or any traumatic event mental health needs and interventions.

Intervention pyramid for mental health and psychological support in humanitarian emergencies

Therefore, it was found essential to explore the effects of psychological consequences of traumatic events. This review is defined to summarize the report on the psychological consequences.[3]

AIM

The aim of the review is to find out the evidence regarding the relationship between psychological consequences and traumatic events.

OBJECTIVE

To conduct a narrative review to analyze the relationship between psychological consequences and traumatic events

MATERIALS AND METHOD

An eligibility criterion of the articles was done on the basis of below mentioned criteria:

Search Strategy Method: This narrative review is consistent with the preferred reporting items for systemic review and meta-analysis (PRISMA) guidelines. The screening was performed using database such as-PubMed, Medline. All pertinent titles and abstracts were read to assess the eligibility predicted on inclusion criteria. After reading the full texts, the researcher abstracted the non- germane articles where potentially pertinent articles were evaluated by other authors to substantiate eligibility.

Initial search retrieved 190 articles and out of which 50 articles were selected for consideration. A total of 25 articles were excluded due to duplication in reviewed databases. The remaining articles were screened and 14 articles were excluded as the full text was not related to the topic. Therefore, 10 articles were screened and included in the review.

The books, non-English manuscript, conferences abstracts and non full-text articles were excluded from the review.

Diagnostic tools

- Medical Outcomes Study 36-Short- Form Health Survey

- Harvard Trauma Questionnaire

- Hopkins Checklist-25

- Secondary source of data obtained from Directorate of Health Services

Study design

- A retrospective, descriptive study design

- Cross- sectional study design

- Prospective cohort study design

- Longitudinal study design

- Epidemiological study design

- Exploratory study

- Qualitative and quantitative study

Type of participants/victims: All age group and both gender

Settings: Places of Humanitarian Emergencies

Outcome: The primary outcome is that there is a huge psychological impact of traumatic events on victims.

Publication time scale: The articles included in this narrative review are from 2000 onwards

FINDINGS

There were very inhibited studies available on the psychological effect of traumatic events. All the studies revealed that a number of psychological symptoms can be developed after witnessing a traumatic event. A detailed explication of studies is as:-

Studies by Galea, etal 2002, Schlenger etal, 2002, New York USA on Cross-sectional study design Terrorist attack focussed on adult population showed symptoms within first 12 months after these terrorist attacks. The highest prevalence was found among survivors and first responders. Socio-economic position, event exposures, social support, and peri-event emotional reactions helped explain differences in PTSD risk in various ethnicities. [5]

The literature review by Pierre Verger, etal, 2004, France, on Epidemiological study on bombing attack, showed results of logistic regression analysis indicating that the risk of PTSD was significantly higher among women. The higher prevalence of PTSD 2.6 years on average after a terrorist attack emphasizes the need for improved health services to address the intermediate and long-term consequences of terrorism. [12]

The authors Robert Kohn, Tamashiro, etal, 2005, Central America, have driven the development of study based on composite International Diagnostic Interview. The study identified a high impact on residential area victims with more distress, higher score on grief inventory and greater severity in PTSD symptoms. The degree of exposure was more among women. [9]

Prior research by Van Griensven etal, 2006, Asia, Prospective cohort study design, Earthquake and tsunami, suggests that among survivors of the tsunami in southern Thailand, elevated rates of symptoms of post traumatic stress disorders, anxiety and depression were reported even 8 weeks after the event with highest rates of anxiety and depression. Nine months after the disaster, the rates of those reporting these symptoms decreased but were still elevated. [4]

Previous studies by Azquez, etal, 2006, Madrid Spain, Exploratory study design, on terrorist attack have shown that the psychological distresses of the sample are similar to the 9-11 attack in comparable situations. The participants with higher scores in chronic thought suppression exhibited higher levels of stress disorders. [7]

A study of Kar, Basita, etal, 2006, Orissa, India, Comparative study design, Super cyclone are well documented and acknowledges that a proportion of adolescents suffered from stress symptoms and syndromal psychiatric diagnosis after one year of event. Overlap of symptoms and co morbidity of diagnosis were high suggesting that a post-disaster presentation is often a conglomeration of PSTD. [10]

It was reported in the literature that analyses showed significantly higher scores on all subscales of detailed assessment of post-traumatic stress symptoms. Women showed greater symptoms in a Qualitative and quantitative study design, Kausar Suhail, etal, 2009, Pakistan on Earthquake. [11]

The literature pertaining to Retrospective review programme, Typhoon Descriptive study design, showed a significant improvement in the mental health of the victims of typhoon with a decreased number of cases in relation to the mental health activities such as psycho-education, group discussion and counselling and care. Ana Cecilia etal, 2014, Philippines, [1]

Javeed Ahmed Rather, 2014, Srinagar, India, Literature Review and Secondary source data obtained from Directorate of Health Services, Floods. The analysis revealed that number of victims with different stress disorders increased as the time passed and majority of them were females. All survivors experienced an alarming level of mental health problems. [8]

Siri Thoresen, Tine K. Jensen, etal, 2016, Utoya Island, Oslo, Norway, Longitudinal study design, Terrorist attack. The study reported elevated levels of PTSS and anxiety/depression four to five months after the shooting compared to Norwegian general population. A threefold excess of anxiety/ depression symptoms followed by five-fold excess of PTSS scores were found in the parents of survivors. [7]

Summary of Findings: This narrative review was conducted to find the documentation of psychological effect of traumatic events on victims. As expressed in Table-1, there are 10 studies and the findings are quite similar. A very limited data is available on the psychological consequences and traumatic events.

The 10 reviewed studies revealed that there could be a lone term psychological effect of traumatic events on the victims/survivors if not taken care in due course of time and sometimes may lead to psychiatric disorders. While concluding, the majority of the studies supported that there is a strong relationship between psychological consequences and traumatic events.

Future significance: The results of the studies denote that victims/survivors need to be inculcated in regard to the psychological avail after any traumatic event. This will avail to reduce the long term effects of psychological consequences and avert psychiatric disorders. The victims should be vigilant of help groups at an early stage and further follow-ups.

There are limited article available on the effects of psychological consequences of any traumatic event on victims. Hence, more research should be done to explore the long term effects of the events.

Strength

- A very less narrative review is available on the psychological consequences of traumatic events.

- A systematic search consistent with PRISMA guidelines

Limitations

- The researcher excluded manuscripts of different language except English, conference abstracts and non- full texts.

- Search strategy was refined to natural disasters such as earthquakes, typhoons, hurricanes etc. and terrorist attacks.

RECOMMENDATIONS

Predicated on all the included 10 narrative studies, the long term effects were still found in the victims with an elevated level. The analysis of the included studies has found some valuable points.

- Each response to a disaster is unique and challenging as interventions take place in a social cohesion is beneficial as they provide a sense of faith, hope and social integration.

- The survivors should be enabled with an immediate aid program by humanitarian organisations. The main goal of the program should be the strengthening of the psychological support to prevent long term psychological traumas associated with psychiatric disorders.

- The psychological first aid should be provided along with the physical and medical assistance by identifying the most vulnerable and at risk.

- Mass Education should be organized in prone disaster areas to impact the knowledge to the society so that they can become aware of their interactions with environment and it's after effects.

CONCLUSION

An electronic narrative review was done by the researcher and the studies which have been screened and evaluated showed a vigorous relationship between the psychological consequences and traumatic events. The studies suggested that there is a high prevalence of PTSD after a terrorist attack or any disaster which emphasizes the need for improved health services to address the intermediate and long-term consequences of traumatic events. Besides that, the highest prevalence was found among survivors and first responders. Socio-economic position, event exposures, social support, and peri-event emotional reactions helped explain differences in PTSD risk in various ethnicities.

Conflict of Interests: There was no conflict of interest in this article.

Source of Funding: It was not a funded research review

Ethical approval and consent to participate: The ethical approval and consent to participate is not applicable in this narrative review.

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A Descriptive Study to Assess the Prevalence of Depression among General Population of Selected Rural Community Area, Jalandhar, Punjab

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ABSTARCT

Background: Depression is an illness that affects both the mind and the body and is a leading cause of disability, workplace absenteeism, decreased productivity and high suicide rates. We are not aware of a study on depression from India covering the general population. The aim of this study is to estimate the prevalence of depression among general population.

Material and Method: A quantitative and non-experimental research design was adopted to assess the prevalence of depression among general population in selected rural community area. A standardised tool, Beck's depression inventory was used to collect data from subjects.

Result: A descriptive study was conducted on 60 subjects of general population in selected rural community area to assess the prevalence of depression, Jalandhar, Punjab. Pilot study was conducted on 10 subjects to ensure the reliability of the tool and feasibility of the study. The data was collected in the third week of May, 2017. The result shows that 28.3% of general population was suffering from depression(scored above 17 according to Beck's Depression Inventory). The association between depression and selected demographic variables (age, gender, family type, socio-economic status and marital status) was determined by using parametric "t"-test and "F"-test to establish statistical significance. The socio-economic status and family type was statistically significant with depression at 5% level of significance i.e. they have influence on depression.

Conclusion: The study highlights the increasing prevalence of depression among general population in selected community area. We recommend that the population must be made aware of this problem so that effective copying mechanisms can be adapted to relinquish its ill effects.

Keywords: Depression, Prevalence, General population.

INTRODUCTION

Depression is one of the most common mental disorders, affecting 350 million people worldwide (WHO 2012). It has been recognized as a major public health problem which has been ranked fourth globally. Depressive symptoms are identified as a mental health problem affecting different population under various sub-groups worldwide. These groups include men, women, elderly people, college students, adolescents and young adults. It is estimated that by 2030 depression-related morbidity rates will rise and depression, as one of the three leading causes of disability, will increase significantly (Poongothai S, PradeepaR)[11]

Depression is defined as the point is or points in one's lifetime when they are mentally unstable and the emotional state marked by sadness, discouragement and loss. Depression causes changes in behavior, thinking and especially changes one's everyday life.

Ageing is a progressive state, beginning with conception ending with death, which is associated with physical, social and psychological changes. There has been a considerable increase in absolute and relative number of older people in the world, population of both developed and developing countries in 20[th]century.

As a result of reduction in both mortality and fertility ; where children are born and more people reach old age, out of approximately 580 million elderly people (60 years and above) in the world around 335 million live in developing countries.

There are many reasons why depression in older people is often missed or untreated. As a person ages, the signs of depression are much more varied than at younger age. It can appear as increased tiredness, or it can be seen as grumpiness or irritability. Confusion or attention problems caused by depression can sometimes look like Alzheimer's disease .or other brain disorders. As man grows older, he faces significant life changes that can put him at risk for depression.

Due to major changes in the lifestyle of the people, there has been significant effect on emotional and psychological well being of the people that has lead to depression. This inturn has forced us to know the prevalence of depression in the general population and help them to overcome this major problem.

OBJECTIVES

- To assess the prevalence of depression among the general population of selected rural community area.

- To find out association between depression and selected demographic variables.

MATERIAL AND METHOD

Research approach was quantitative and was descriptive research design. Purposive sampling technique was used. This study was conducted in selected rural community area of jalandhar cantt during the month of April-May 2017 on 60 people. Permission was obtained from concerned authorities for conducting the study. The scale is a standardized tool having 21 items, self-report rating inventory that measures characteristic attitudes and symptoms of depression. Verbal consent was taken from the study subjects. Respect of human dignity as well as anonymity and confidentiality of the subjects was maintained throughout. Data collection was done through application of beck depression inventory. After the data collection, data was coded, tabulated and analyzed by relevant descriptive and inferential statistics.

FINDINGS

Table 1 depicts that the maximum number of samples,23(38.33%) were in age group ≤30 years, followed by 13(21.66%) in 31-40 years, 14 (23.33%) in age group 41-50 years,04(6.66%) in age group 51-60 years and the age group ≥61 includes 06(10.00%).

Table 1: Distribution of sample on the basis of frequency and percentage; according to the socio-demographic variables

N = 60

Socio-demographic variables	Frequency (n)	Percentage (%)
Age (years)		
≤30	23	38.33
31-40	13	21.66
41-50	14	23.33
51-60	04	06.66
≥60	06	10.00
Gender		
Male	22	36.66
Female	38	63.33
Family Type		
Nuclear	37	61.66
Joint	23	38.33
Socio-economic status		
Upper class	01	01.66
Middle class	45	75.00
Lower class	14	23.33
Marital status		
Married	36	60.00
Unmarried	20	33.33
Divorce	01	01.66
Widow	03	05.00

Frequency and percentage distribution as per the level of depression among general population

Table 2: Prevalence of depression based on the socio-demographic variables

N = 60

Socio-demographic variables	Depression N = 17	No depression N = 43	Prevalence (%) N = 60
Age (years)			
Below 30	06	17	10.00
31-40	03	10	05.00
41-50	03	11	05.00
51-60	02	02	03.33
Above-60	03	03	05.00
Gender			
Male	7	15	11.67
Female	10	28	16.66

Conted…

Family Type			
Nuclear	9	28	15.00
Joint	8	15	13.33
Socio-economic status			
Upper class	0	01	00.00
Middle class	11	34	18.33
Lower class	6	08	10.00
Marital status			
Married	10	28	16.66
Unmarried	05	14	08.66
Divorced	01	-	01.66
Widow	02	01	03.33

Table 2 depicts, the prevalence of depression with respect to the socio-demographic variables. Out of 60 subjects, in the age group- below 30 years had high prevalence i.e. 10.00%; with respect to gender- females had high prevalence of 16.66%; with respect to family type- nuclear family had high prevalence15.00%; with respect to socio-economic status-middle class had high prevalence 18.33% and with respect to marital status-married individuals had high prevalence 16.66%.

DISCUSSION

This chapter deals with the discussion about present study, where comparison with other similar research were made (A descriptive study to assess the prevalence of Depression among general population in selected community area, Jalandhar, Punjab in 2016-17.)

This section also presents the verdict whether our findings support the existing theories and assumptions or the findings refute the earlier studies and why not?

OBJECTIVE-1

To assess the prevalence of depression among the general population of selected community area: In the present study, it has been found that 28.3% subjects have moderate depression and 71.7% do not suffer from depression.

The above study is supported by the following studies: SekhonHarinderet.al. (2015)[8] conducted a study on prevalence of depression in a large urban South Indian population .The study revealed that prevalence of depression was 51.1%.

NagarajaG.Met.al. (2015)[7] conducted a study on prevalence of depression and its socio-economic determinants among students. Results revealed that the total prevalence of depression was estimated to be 22.2%.

SolomenHailemariam et al (2016)[10] conducted a study on the prevalence of depressive disorder among general population in Ethiopia The study revealed that prevalence of depressive episode among theEthiopian population was 9.1%.

Mellal AA et al (2014)[9] had conducted a cross sectional study on 12-month prevalence of depression and health care utilization in the general population. The study revealed that 12-month prevalence of major depression was 7.9%, while for minor depression it was 7.7%.

OBJECTIVE 2

To find out association between depression and selected demographic variables: In the present study, thevariables(socio-economic status and family type) shows association with depression and the association was statistically significant. The other variables age, gender, marital status were not statistically significant.

CONCLUSION

It has been concluded from the findings of the study that more prevalence of depression has been found among general population and association has also been found between the Socio-demographic variables (Socio-economic status and Family type) and depression. Thus, Socio-demographic variables have direct influence on the level of depression.

Conflict of Interest: None

Sources of Funding: Self

Ethical Clearance: It was taken by ethical committee of college.

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Perceptions and Practices regarding Breastfeeding among Postnatal Mothers

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ABSTRACT

Introduction: Breastfeeding is universally acknowledged to be the best and complete food for infants as it fulfills specific nutritional needsand also benefits for mother. However despite strong evidences in support breastfeeding its prevalence has remained low worldwide. The objective of present study was to assess perceptions and practices on breastfeeding among postnatal mothers.

Methodology: A cross-sectional descriptive study design was carried out among 257 postnatal mothers of Manipal Teaching Hospital from June to August 2017. Consecutive sampling technique was used for the study. Data was collected through face to face interview usingsemi-structured questionnaire. Data were analyzed using descriptive and inferential statistical method.

Result: There was positive perception on breastfeeding among postnatal mothers (56.4%) that was mostly on benefits of breastfeeding, early initiation of breastfeeding and starting complementary feeding but there is poor perception on honeyand water administration to newborn; breastfeeding continuation at least 1 year. Initiation of breastfeeding within one hour of birth was done by minority of mothers (19.5%). Majority of mothers (82.9%) was given prelactal feeding to their baby that was infant formula (98.1%).

Conclusion: The mothers have few negative perceptions regarding breastfeeding but practices on early initiation and exclusive breastfeeding were poor. It is essential to rectified by health education to mothers.

Keywords: Breastfeeding, Perception, Postnatal mothers, Newborns

INTRODUCTION

Breastfeeding is universally acknowledged to be the best and complete food for infants as it fulfills specific nutritional needs.[1]Breastfeeding has numerous benefits like a decrease in the incidence, severity of infectious diseases such as diarrhea, respiratory tract infections, otitis media and urinary tract infection; decreased incidence of types 1 and 2 diabetes mellitus, overweight, obesity and asthma.[2, 3, 4]Also it is well known that breastfeeding has health benefits to mothers like decreased postpartum blood loss, more rapid involution of the uterus, continued breastfeeding leads to increased child spacing, decrease postpartum depression and more rapid return to pre pregnancy weight.[2]Suboptimal breastfeeding practices in terms of initiation, exclusivity and duration contribute to over 804,000 deaths (11.6%) in children under five years of age.[5]Initiating breastfeeding in the first hour of life decreases the risk of neonatal death by 20%. Society also benefits by decreasing medical costs as sick care visits, prescriptions and hospitalizations.[6]World Health Organization and American Academy of Pediatrics recommended exclusive breastfeeding for the first six months of life followed by nutritionally adequate and safe complementary foods with continued breastfeeding up to two years of age or beyond.[7]In spite of having all these benefits only 38% of infants globally were exclusively breastfed.[5]In the context of Nepal 66% were found to be exclusively breastfed and 55% were found to be initiated breastfeeding in first hour of life.[8]

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Breastfeeding is influenced by caregiver and societal beliefs, health care system, commercial factors of infant formula, lack of knowledge on the dangers of not exclusively breastfeeding among woman.[5]Maternal positive perceptions toward breastfeeding are associated with continuing to be breastfeeding longer and have a greater chance of success. One of the key to successful breastfeeding is change perception towards breast feeding among postnatal mothers. The current study was designed to assess the perceptions and practices related to breastfeeding among postnatal mothers. This information will be useful to healthcare worker to the formulation of future interventional programs.

METHODOLOGY

A cross-sectional descriptive study design was carried out to assess perceptions and practices regarding breastfeeding among 257 postnatal mothers of Manipal Teaching Hospital. Consecutive sampling technique was used for the study. The study was carried out over a 3 month period (June 1st to August 30th 2017). During the period all the postnatal mothers who meet the inclusion criteria were included in the study. Mothers critically ill who are not able to breastfeed like eclampsia, psychosis, stillbirth, infant with congenital anomalies and baby who require the neonatal intensive care were excluded. Data was collected by face to face interviewing mothers. Postnatal mothers were interviewed before discharge (the average stay in ward 3-4 days).

A semi-structured interview schedule was developed to collect socio-demographic information of postnatal mother and baby, obstetric information of postnatal mother, breastfeeding practices of postnatal mother and perceptions of postnatal mother regarding breastfeeding. The questionnaire was developed based on review literature and validated for content by experts in nursing, pediatric, community medicine. Pretesting of the instrument was done among 20 postnatal mothers to check ease of administration and understandability.

A five points Likert scale was used to determine the perceptions of postnatal mothers on various aspects of breast milk and breastfeeding. Approximately half of the questions were negatively worded (i. e. 2, 4, 6, 10, 11, 13, 14, 16) Total perception score ranged from 18 – 90 with higher score ranged more positive perceptions. Perceptions on breastfeeding were grouped in two category positive and negative perceptions on the basis

on mean score. Once responses were collected, this was collated into three –point Likert scale (disagree, neutral and agree). Data was analyzed by using Statistical Package for Social Sciences (SPSS) software version 16. The data was presented using descriptive statistics that include frequencies, percent, means and standard deviation. Also perceptions regarding breastfeeding was used to examine the association with socio-demographic and obstetric variables using chi square test and a statistical significance was set at p value of <0.05.

FINDINGS

Table 1: Socio-demographic Characteristics of Postnatal Mothers

n = 257

Characteristics	Frequency	Percentage (%)
Age		
<20 Years	34	13.2
20 – 25 Years	110	42.8
26 – 30Years	83	32.3
31 – 35 Years	24	9.3
>35 Years	6	2.3
Religion		
Hindu	234	91.1
Buddhist	18	7
Islam	3	1.2
Christian	2	0.8
Type of Family		
Nuclear	108	42.0
Joint	149	58.0
Education		
Illiterate	15	5.8
Primary	20	7.8
Secondary	105	40.9
Intermediate	54	21.0
Bachelor& above	63	24.5
Occupation		
Homemaker	178	69.3
Service	34	13.2
Business	19	7.4
Farmer	14	5.4
Student	10	3.9
Abroad	2	0.8
Residence		
Urban	204	79.4
Rural	53	20.6

Table 1 shows majority of postnatal mothers were age group of 20 – 25 years i.e. 42.8% with mean age 25.10±4.79. Most of postnatal mothers were Hindu religion (91.1%). Fifty eight percent of postnatal mothers were belongs to joint family. Majority of postnatal mothers (40.9%)were educated till secondary level. Most of postnatal mothers (69.3 %) were homemaker. Most of postnatal mothers were from urban i.e. 79.4%.

Table 2: Obstetric Characteristics of Postnatal Mothers

n = 257

Characteristics	Frequency	Percentage (%)
Parity		
Primiparous	152	59.1
Multiparous	105	40.9
Antenatal Checkup		
Yes	243	94.6
No	14	5.4
Place of Antenatal Checkup (243)		
Government Hospital	80	33.0
Teaching Hospital	66	27.1
Primary Health Care Center/Health post	58	23.9
Private Hospital	39	16.0
Times of Antenatal checkup (243)		
<4 times	42	17.3
≥4 times	201	82.7
Mode of Delivery		
Vaginal	123	47.9
Caesarean Section	134	52.1

Table 2 depicts around sixty percent were prim mothers. Almost postnatal mothers attended antenatal checkup (94.6 %), 31.1 % of mother visited government hospital for antenatal checkup and 82.7 % mothers visited ≥4 times antenatal checkup. Mode of delivery was vaginal and by caesarean section 47.9 and 52.1 respectively.

Table 3: Breastfeeding Practices among Postnatal mothers

n = 257

Characteristics	Frequency	Percentage (%)
Initiation of Breastfeeding		
Within 1 Hour	50	19.5
1-12 Hour	71	27.6
>12 Hours	126	49
Not yet Breastfeeding	10	3.9
Prelactal Feeds		
Yes	213	82.9
No	44	17.1
Types of Prelactal Feeds (213)		
Infant Formula	209	98.1
Milk of others	4	1.9
Feeding Method at Discharge		
Breastfeeding	113	44.0
Infant Formula	16	6.2
Both	128	49.8

Table 3 revealed minoritymothers (19.5 %) started breastfeeding within 1 hour of delivery, almost fifty percent mothers started breastfeeding after 12 hours and 3.9 % mother not yet started breastfeeding to baby. Most of the mothers (82.9%) provided prelactal feeds to their baby due to perception of not sufficient breast milk production and baby separation due to caesarean section. Among them 98.1 % received infant formula. About fifty percent mother feed both breastfeeding and infant formula to their baby at time of discharge.

Table 4: Perceptions on Breastfeeding among Postnatal Mothers

n = 257

S. No.	Statement	Agree		Neutral		Disagree	
		f	%	f	%	f	%
1.	Breastfeeding provides the best source of nutrition for babies	256	99.6	1	0.4	0	0
2.	Colostrum milk shouldn't give to baby*	42	16.3	29	11.3	186	72.4
3.	Breastfeeding is more convenient	236	91.8	14	5.4	7	2.7
4.	Breastfeeding is benefit to baby only*	154	59.9	12	4.7	91	35.4
5.	Breast milk is easily digestible	226	87.9	24	9.3	7	2.7

Conted…

6.	Babies who are only breastfed up to 6 month are more likely to be sick*	34	13.2	23	8.9	200	77.8
7.	Breastfeeding should start within an hour of birth of baby	192	74.7	47	18.3	18	7
8.	Breast feeding increases mother infant bonding	234	91.1	17	6.6	6	2.3
9.	Breastfeeding prevents from PPH to mother	141	54.9	92	35.8	24	9.3
10.	Breastfeeding increase the chance of breast cancer to lactating mother*	43	16.7	34	13.2	180	70
11.	Honey should be given to newborn baby*	80	31.1	78	30.4	99	38.5
12.	Complementarily feeding should start after 6 months of the age	247	96.1	5	1.9	5	1.9
13.	Breastfeeding should continue up to at least 1 year*	192	74.7	13	5.1	52	20.2
14.	Water should be given to babies under 6 month of age*	150	58.4	23	8.9	84	32.7
15.	Breastfeeding helps to birth spacing between children	152	59.1	62	24.1	43	16.7
16.	Most infant formulas are nutritionally equivalent to breast milk*	41	16	9	3.5	207	80.5
17.	Breast milk increases the immunity of newborn babies	236	91.8	15	5.8	6	2.3
18.	The best breastfeeding regime is demand feeding	226	87.9	14	5.4	17	6.6

*Reverse scored items

Table 4 illustrated the perceptions on breastfeeding of mothers. Almost hundred percent mothers (99.6%) agreed breastfeeding is nutritious. Majority of mothers (72.4%) viewed colostrum milk should provide to baby. Most of the mother agreed that breastfeeding is more convenient than formula feeding (91.8%). Around sixty percent of mothers were agreed on the statement breastfeeding is benefit to baby only. Of the mothers, 87.9% agreed breast milk is easily digestible. More than three fourths of the mothers disagreed babies who are only breastfed up to 6 months are more likely to be sick. Majority of mothers agreed that breastfeeding should start within an hour of birth of baby (74.7%), increase mother and infant bonding (91.1%), prevents from PPH (54.9%) and decrease chance of breast cancer (70 %). More than one third of mother felt honey should not be given to their neonate where as 31.1% mother opined to give honey to neonate. Most of the mother agreed that complementary feeding should start after 6 months of age (96.1%). Nearly three fourths of mother agreed that breastfeeding should continue up to at least 1 year. More than half mothers felt water should be given to babies under 6 month of age. Around sixty percent of mother agreed that breastfeeding helps to birth spacing between children. Most of the mother disagreed to most infant formulas are nutritionally equivalent to breast milk (80.5%). Most of the mother agreed breast milk increases the immunity of newborn babies (91.8%) and the best breastfeeding regime is demanding feeding (87.9%). The average score of the perception on breastfeeding was 69.87 ±7.27.

Table 5: Breastfeeding Perceptions Level among Postnatal Mothers

n = 257

Perception Level	Frequency	Percentage
Positive Perception	145	56.4
Negative Perception	112	43.6

Table 5 depict majority of mothers had positive perception (56.4%) however 43.6 % mother had negative perception regarding breastfeeding.

Table 6: Association between Breastfeeding Perception Level and Selected Variables

n = 257

Variables	Level of Perception		χ^2	p value
	Positive (%)	Negative (%)		
Age				
≤ 25 Years	73(50.7)	71(49.3)	4.36	.037*
>25 Years	72(63.7)	41(36.3)		

Conted…

Occupation				
Economically Active	47(68.1)	22(31.9)	5.24	.022*
Economically Inactive	98(52.1)	90(47.9)		
Education				
Illiterate	3(20.0)	12(80.0)	28.84	.000*
Secondary education	56(44.8)	69(55.2)		
Higher Education	86(73.5)	31(26.5)		
ANC Checkup				
Visited	143(58.8)	100(41.2)	11.32	.001*
Not Visited	2(14.3)	12(85.7)		
Place of ANC Checkup				
Government Health Institute	80(58.0)	58(42.0)	.101	0.75
Nongovernment Health Institute	63(60.0)	42(40.0)		
Parity				
Primipraous	82(53.6)	71(46.4)	1.22	0.26
Multipraous	63(60.6)	41(39.4)		

* $p < 0.05$ statistically significant values

Table 6 shows that there was increase positive perception among increasing age, economically active group, mothers with higher education and mother who attended antenatal checkup. There was no significant association found on place of ANC checkup and parity.

DISCUSSION

Although breast feeding practices are universal in Nepal but owing to modernization significant lacking on perceptions and practices breastfeeding have been seen. The present study reveal initiation of breastfeeding within hour of delivery was done by only 19.5% mothers which is similar to study done in Saudi (18%)[9] whereas contrast to study done in India and Nepal 61%, 45% respectively.[8,10] This study reported higher prelacteal feeding 82.9% than another Nepalese studies 30.2%, 28%[11,12] and study done in Southern India 16%.[10] Infant formula commonly fedprelactal feeding in this study (98.1%) which was supported by the study done in Southern India.[10] Mostly mother (49.8%) used feeding method at the time of discharge was both (breast feeding and infant formula) which similar to study done in Saudi.[9]

In present studymothers appreciated breastfeeding is nutritious, convenient, easily digestible and increase bonding between mother and baby which was consistent with the study done in India.[13] The mother perceived breastfeeding protect from disease (91.8%) and contraceptive advantage (59.1%) which was found lower in the study done in Southern India.[10] The idea of formula feeding are nutritionally equivalent to breast milk was disagreed by mothers which was supported by study done by India.[13] Most of mothers agreed breastfeeding protect the mother against breast cancer and postpartum hemorrhage which was consistent with the study done in Saudi.[9] Most of the mother had high perception regarding breastfeeding initiation within one hour but practice seems to low in mothers. The mothers had perceptions regarding the providing honey and water within the first 6 months of life. These findings indicate health professionals need to more emphasis to mothers to initiate breastfeeding in timely in clinical area.

CONCLUSION

The present study concluded that the mothers had positive perception regarding breastfeeding but practices on early initiation and prelactal feeding were not satisfactory. It would be essential to counsel mothers during antenatal period regarding breastfeeding, stress the advantages of breastfeeding.

Ethical Clearance: Ethical permission was taken from Institute Review Committee of Manipal College of Medical Sciences (MCOMS). Informed consent was taken from respondents after clarification of objectives of the study. The environment was maintained free from any kind of pressure and biasness. Respondents were assured that information they provide will be maintained confidential.

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Semi Traditional Clinical Instruction Vs. Preceptored Clinical Instruction: Satisfaction among Nursing Students

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ABSTRACT

In a new nursing program, clinical rotations in the surgical and medical units were handled in a manner similar to but not identical with the "traditional instruction" format. The instructors in this "semi - traditional" program were ward nurses relieved of responsibility for their own patients while they were serving as instructors. Due to various reasons an alternative model of instruction was formed, based upon clinical preceptors. Two students at a time were paired with a qualified clinical nurse instructor while performing his/her duty on shift.

The present study was designed to compare satisfaction among nursing students with respect to the two models of clinical instruction. Data was collected from nursing students who completed an instructor evaluation questionnaire.

The results do not show a preference to a specific method, the higher scores per item vary between the methods.

The following keywords were used: nursing students, clinical experience, nursing student satisfaction.

INTRODUCTION

The shortage of nurses in recent years has led to the opening of new programs[1]. The additional programs have created an increased demand for clinical sites and clinical instructors.

Clinical instruction is traditionally supervised by an instructor. A group of up to ten students accompany the instructor who is not part of the hospital staff but is rather part of the nursing school faculty[2].

Nine years ago a new nursing program opened at the Jerusalem College of Technology (JCT). Clinical rotations in the surgical and medical units were handled in a manner similar to but not identical with the "traditional instruction" format. The instructors in this "semi - traditional" program were ward nurses relieved of responsibility for their own patients while they were serving as instructors. Critical shortage of clinical instructors as well as dissatisfaction among JCT students regarding the quality of their training from various aspects brought to our attention via anecdotal reports, raised the need for an alternative model of instruction, based upon clinical preceptors. Two students at a time were paired with a qualified clinical nurse instructor while performing his/her duty on shift[2].

Comparisons were drawn between two models of instruction.

LITERATURE REVIEW

Several articles comparing different models of clinical instructions were reviewed:

Hendricks[3] compared traditional and preceptored clinical instruction.

Students completed evaluation questionnaires that examined three parameters: the number of opportunities they had to carry out "hands on" practice, the extent of

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support and satisfaction they received from the clinical instructor, and the grade they received for the courses.

The evaluation questionnaires were completed by all students in both groups over three different periods of time. Regarding hands on experience, significant difference was found in favor of the preceptored clinical instruction in all 3 time periods measured The assessment of support and satisfaction showed that in the first period a significant difference was found in favor of the preceptored clinical instruction, but there was no significant difference in the following two periods. No significant difference arose between groups regarding course grades. Ownby [2] also compared the two different models of instruction. Here the parameters included grades in the medical -surgical final exam, final grades in the pharmacology exam, the grade assigned to a paper handed in during the clinical rotation, and the preceptor's evaluations. There was no significant difference in most of the parameters between the two models. Similar comparison was made by Omer [4]. Differences that emerged were primarily in connection with the performance of the clinical instructor, including pedagogical ability, effectiveness as a role model, value of his/her feedback. Their results showed a higher level of satisfaction among students who experienced their clinical instruction via the traditional model as opposed to the preceptored model.

Lofmark[1] surveyed student satisfaction with clinical rotations where instruction involved either a clinical ward nurse or a member of the university's nursing school faculty. The parameters included, among others, were satisfaction with the instruction, the degree of student independence, the level of student self-confidence, the development of critical thinking, and the willingness to undertake responsibility. The nursing school instructors received higher ratings than the working ward nurses.(overall mean 4.32 vs 4.02)

Other authors, [3] studied clinical rotations where in each included four kinds of instructors – junior and senior preceptors , and junior and senior nursing faculty staff members. All four groups were asked to fill out questionnaires to determine which method of instruction was most effective in achieving the objectives of the clinical rotation. The parameters measured included integrating theory and practice, formulating clinical discussions, and the value of seminars. The highest ratings were generally assigned to junior and senior nursing faculty staff members.

RESEARCH OBJECTIVE

The present study was designed to compare satisfaction among nursing students with respect to the two models of clinical instruction. Our initial assumption when building the program was that nursing students' satisfaction with clinical rotations would be higher with regard to "semi - traditional" clinical instruction model as opposed to the preceptored clinical instruction model. The instructor in the "semi - traditional" model has no additional responsibilities except for the students under supervision and is therefore more available for them, as opposed to the instructor in the preceptored clinical instruction model who is simultaneously responsible for both patients and students.

METHOD

Research Design: The study was a cross-sectional retrospective study with data collected from nursing students who completed an instructor evaluation questionnaire.

Instrument: The questionnaires consisted of both quantitative and qualitative components. The quantitative component included 18 questions. The answers were correlated on a Likert scale. The students were asked to mark their level of agreement regarding various statements spanning from 1–total disagreement to 5-full agreement. For example: "The instructor states the expectations and objectives of the clinical rotation very clearly." The second part of the questionnaire included non-structured questions evaluating the instructor.

Validity: The questionnaire was adapted from one widely used questionnaire in another Israeli university. It was critiqued by the faculty of the college where this study took place. No prior reliability data was found by this author.

In this study the instrument yielded a Cronbach's α = 0.954

Factor analysis revealed only one factor.

Sample: The study population comprised all nursing students in their second year of study for a Baccalaureate degree in nursing. Second-year students have clinical rotations in the surgical and medical units.

Procedure: Questionnaires from 2011–2014 were included in this study. The clinical rotations were all in the medical and surgical units in hospitals in central Israel. To avoid bias, students completed the questionnaires

prior to receiving their evaluation and grades for the clinical rotations. Completing the questionnaire was obligatory for all students.

Data was divided into two groups according to the instruction method, "semi- traditional" vs "preceptored clinical instruction".

Eight hundred and twenty four questionnaires were completed between the years 2011 and 2014. Of these 510 evaluated medical units and 314 surgical units; 218 questionnaires (26.5%) related to preceptored clinical instruction and 606 (73.5%) dealt with "semi traditional" clinical instruction.

STATISTICAL ANALYSIS

Means and standard deviations were calculated for each item on the questionnaire. The Kolmogorov-Smirnov test yielded an abnormal distribution of the data, so the Mann-Whitney test was performed in order to compare the differences between the means

RESULTS

The overall mean (4.24) revealed that the students tended to highly rate the instructors. Only for the item: "The instructor uses various methods of teaching" was the grade under 4 (3.9). For the item: "Allows one to ask questions freely" the rating in both groups was a high 4.6 out of 5. For the item: "Demonstrates professionalism as a caregiver" the ratings in both groups were high with a difference of 0.1 in favor of the "semi-traditional" instruction method.

The overall mean for all the items was slightly lower among the "semi -traditional" model compared to the preceptored model. No significant difference was found for either model; $Z = 0.398$, $p > 0.05$ (see Table 1).

Table 1: Comparison of clinical instructor type overall evaluation

	Type of instruction	N	Mean	Std. deviation	Std. error mean
Mean1	Traditional	218	4.2100	.78456	.05314
	Paired	606	4.2781	.70166	.02850

When analyzing each item separately comparing the two models of instruction we found significant differences for two items: for "Demonstrates professionalism as a caregiver" ($Z = –2.655$, $p = 0.008$), and for "Engages in clinical discussions as required" ($Z = –2.655$, $p = 0.008$). For "Uses other professional staff as a resource," we found a marginal result ($Z = –1.665$, $p = 0.096$). For "Demonstrates professionalism as a caregiver" and "Uses other professional staff as resource," the "semi - traditional" method instructors scored higher. For "Engages in clinical discussions as required," the preceptored clinical instructors scored higher ratings. In regard to hands on practice, though the difference wasn't significant, preceptored clinical instructors scored higher ratings than the "semi traditional" instructors (4.4- 4.3)

DISCUSSION

The results above do not show a preference to a specific method, the higher scores per item vary between the methods.

Factor analysis of the instrument revealed only one factor, meaning an instructor that was highly rated was highly rated in all parameters. There is a discrepancy between the anecdotal evaluations during which students voiced complaints, and the high ratings they gave the instructors. The ratings seem to have been inflated and the question why. A possible explanation may be that objectively, instructors performed well on most parameters. Subjectively, students tended to rate according to their feelings and general impression of the instructor's contribution to them as an individual. An additional explanation may be when students considered one parameter as important they tended to follow suit on all parameters.

The difference in student satisfaction between the two clinical instruction methods was not significant. This finding parallels to findings in the literature; in most studies there was no statistical difference between the two models (Hendricks et al., 2013; Ownby et al., 2012)

Hendricks et al.(2013) found that students of the preceptored model reported more opportunities for hands on practice. This finding is similar to that found in this research. Two Students working closely with a nurse as opposed to a group of up to 10 students, have more opportunities to perform hands on practice and the instructor is more available to act as safeguard is higher.

The assumption in the present study was that an instructor that is not directly responsible for patient care will be more available for the students, but as noted there were no significant difference between the two models. Moreover, it turned out that when a nurse was responsible for a number of patients in addition to instructing two nursing students the availability to the students was the same or slightly higher. Furthermore, in the preceptored model students are exposed to additional issues, whereas in the confines of the "semi - traditional" instruction method such exposure is limited. For example, when students work closely with a ward nurse they take part in planning, intervening, and evaluating the patient care, which requires some degree of critical thinking.

Another consideration with the "semi traditional" method students are often assigned patients or are informed as to who these will be ahead of time, which allows them to prepare by reviewing relevant medical data, including the pharmacological therapy. With preceptored instruction students follow the nurse to whom they have been assigned and do not know ahead of time who the patients will be, so they must have a broader initial command of medical and pharmacological information (Ownby et al., 2012).

A major complaint among students in the"semi-traditional" instruction group was "dead time," that is, the time they spend waiting for the instructor to assign, approve, and/or supervise an intervention. One of the ways this challenge was dealt with was by designing productive learning activities for students to do individually in the clinic to fill the "dead time". With the preceptored method the students work more intensively with the nurse, who is generally very much available to them.

Omer et al. (2013) found higher levels of satisfaction among students who experienced the traditional instruction method. The comparison between the two models of instruction was undertaken in different kinds of wards, which may explain the difference in findings between the two methods. In the study of Omer et al. (2013), the traditional instruction was carried out in medical-surgical units, whereas preceptored instruction took place in pediatric and intensive care units, where by their nature there is less leeway for nursing students.

In pediatric units parents accompanying their children are protective and not always willing to allow students to care for their children. In intensive care units patient care is much more complex. Medical and surgical units cater primarily to an elderly population with comorbidities of chronic illnesses, which enables the student to practice intervention for prevention of illness and complications, including basic bedside care and patient and family instruction.

The main limitation of this study is that the questionnaires did not include socio-demographic information, which precluded examining relationships between this data and the student evaluation.

SUMMARY AND CONCLUSION

The findings in the present study as well as in the literature cited indicated that there was no advantage to the method of clinical instruction in items of rating.

The preceptored clinical instruction model, however, exposes students from the beginning of their clinical training to comprehensive patient care with patients suffering from conditions at different levels of complexity and leads to a better and faster socialization into the nursing profession. Students noted that they felt appreciated while working with the staff and not being part of an outside group. Strengthening a sense of belonging among students is a very important factor.

A most significant finding that must not to be overlooked is students' high level of satisfaction with instruction given by the nursing school staff (Lofmark et al., 2012; Hall-Lord et al., 2013). When the preceptored model is employed it is recommended that it be combined with instruction from members of the nursing school staff, which will enrich students' experience and enhance their ability to blend theoretical and practical knowledge.

Further studies are needed to understand what instructors perceive as influencing students' satisfaction and the reason(s) behind students inflating their ratings of clinical instructors.

Conflicts of Interest: None.

Ethical Clearance: Approval was obtained from the ethical board of the faculty of the of Life and Health Sciences department-Jerusalem college of Technology

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Effectiveness of PTP Regarding Use of Braden Scale for Pressure Sore on Knowledge and Practices among Staff Nurses Working in Selected Hospitals

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ABSTRACT

Background: Skin care, an elementary element of fundamental care, thinks about the nature and the patient gets in healing facility. Quality care pointed averting the limiting pores and skin breakdown and pressure sores has been known together of nursing analysis need.

Stress lesion may be a normal disadvantage in nursing follow and includes great fees for the sufferers yet with recognize to the medicinal offerings gain.[1]

Aims and Objectives: To assess the knowledge & practices of staff nurses regarding Braden scale by pre-test. To evaluate the effectiveness of Planned teaching programme on knowledge and practices regarding use of Braden scale. To find out the association between pre-test knowledge scores with the selected socio-demographic variables.

Materials and Methods: A Quantitative research approach and one group pre-test post- test research design was used. 75 samples were selected as per the criteria with non- probability purposive sampling technique.

Results and Conclusion: Study finding showed, shows, 6.7% staff nurses were having poor knowledge score (0-5), 13.3 % have Average knowledge score (6-10), and 60 % have good knowledge score (11-15) and 20 % with Excellent knowledge score. Study findings shows that there is a need for in service education for nurse's improvement of knowledge and there should be maintained a safe practice regarding use of Braden scale. Every unit should have written protocols and should be reviewed regularly. Further study can be done for assessing knowledge together with the practices in large scale.

Keywords: Pressure sores, Braden scale.

INTRODUCTION

Skin care, an elementary element of fundamental care, thinks about the nature and the patient gets in healing facility. Quality care pointed averting the limiting pores and skin breakdown and pressure sores has been known together of nursing analysis need.

Stress lesion may be a normal disadvantage in nursing follow and includes great fees for the sufferers yet with recognize to the medicinal offerings gain.[1]

The pressure that closes capillaries in healthy individuals is 25–32 millimeter of Hg. Once pressure applied to the skin is bigger than this pressure within the skin tissue, it will impair cell digestion. It diminishes blood offer to the tissue and in the long run causes tissue iron deficiency, this lessening in blood stream causes whitening of the skin. The longer the pressure lasts, the greater is that the danger of skin breakdown and improvement of pressure injury.[2]

Pressure ulcers zone a unit preferred, agonizing and circumstance, results of a 1991 have a look at into the information amongst Dutch hospital nurses at the utility of measures to forestall pressure ulcers confirmed moderate facts results had been showed by way of future studies.[3]

MATERIALS AND METHOD

Research Approach: Quantitative experimental.

Research Design: One group pre-test post-test design is used for this study.

Population: Staff Nurses.

Sampling Technique: Non-Probability purposive sampling technique.

Sample Size: 75

Sample: Staff Nurses

VARIABLES

Independent Variable: Planned Teaching Programme

Dependent Variable: Knowledge

RESEARCH TOOL

Section-I (Demographic variables)

Section-II (Questionnaire) contains 20 questions.

(Observational checklist)

OBSERVATIONS AND RESULTS

Table No. 1: Association of Knowledge Score with Selected Demographic Variables

n = 75

Sr. No.	Demographic variable	Fisher's exact test	P value	Remark
1.	Age	3.804	0.944	No significant association
2.	Gender	5.392	0.144	No significant association
3.	Year of experience in clinical area	0.613	1	No significant association
4.	Qualification	11.365	0.04	significant
5.	In-service education Attended	6.362	0.097	No significant association

Table no. 1, Indicates that, there is no significant association between age, gender, Yrs. Of experience, and knowledge score as calculated 'p' value is more than 'p' (0.05). But there is significant association between Qualifications as calculated 'p' value is less than (0.05).

Table No. 2: Comparison of Knowledge Score of Staff Nurses of Pre-test and Post-test

n = 75

	N	Mean	Std. Deviation	Std. Error	t value	P Value
Pretest	75	7.813	3.60007	0.4158	-9.058	0.000
Post test	75	12.51	3.685	0.425		

Table No. 2 Shows, there is statistically significant difference in the mean of pre-and post-test score.

Table No. 3: Comparison of Practices of Staff Nurses of Pre-Test and Post-Test

n = 75

	N	Mean	Std. Deviation	Std. Error	t value	P Value
Pretest	75	10.99	4.732	0.546	-4.988	0.000
Post test	75	14.72	4.689	0.541		

Table No. 3 Shows, there is statistically significant difference in the mean of pre-and post-test score.

CONCLUSION

This chapter deals with analysis and interpretation of data collected from 75 samples regarding use of Braden scale on knowledge and practices. Analyses were done as per the objectives. Frequency and percentage were used for finding out the knowledge and association of knowledge with demographic variables was done by using chi-square and fisher's exact test.

Study concluded that there was effective planned teaching programme among staff nurses and knowledge, practices where improved significantly.

Ethical Considerations: The Research proposal with data collection tool was presented in front of ethical committee. Ethical Clearance was approved by the Committee of university. Permission taken from authorities of selected hospital's.

Approached the samples, explained about the purpose of the study and assured them that the confidentiality will be maintained. Informed consent was taken.

Source of Finding: Self

Conflict of Interest: Nil

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A Study to Assess the Effectiveness of Swaddling on Pain among Neonates Undergoing Heel Lancing Procedure in Neonatal Intensive Care Units

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ABSTRACT

Neonates, infants and children often require examinations and investigations for admissions in the hospital. Even after admission frequent examinations and procedures will be carried out for further management. Pain during such investigations, treatments and procedures are called as procedural pain.[1]Appropriate pain relief can be achieved through administration of analgesics. But analgesics can cause different side effects and reaction to the newborns.[2] Swaddling is the procedure of wrapping a baby in a blanket for warmth and security.[3] swaddling provides stimulation across the proprioceptive, thermal, and tactile sensory systems that may reduce pain through gate control mechanisms.[4]

Objectives

- To assess the pain among neonates undergoing heel lancing procedure in control group and experimental group

- To assess the effectiveness of swaddling among neonates undergoing heel lancing procedure in experimental group.

Material and Method: Quasi experiment post test only control group design was conducted to assess the effectiveness of swaddling on pain during heel lancing procedure. Total 60 Samples were selected by Non-probability purposive sampling method. Neonatal infant facial coding system (NFCS) is used to assess the pain. The conceptual framework based on the widenbach's prescriptive theory, with three factors which is Central purpose, the prescription and the realities.

Result and Conclusion: during heel lancing procedure 10% experienced moderate pain and 90% experienced severe pain in control group and in experimental group 93.3% experienced moderate pain and 6.6% experienced severe pain. The mean pain score of control group is 7.2 and experiment group is 3.7 and p value is o.ooo1 which is less than 0.05 shows the difference in pain score in experimental group. Hence it is found that swaddling is effective in reducing pain during heel lancing procedure.

Keywords: *Effectiveness, Swaddling, Pain,Heel lancing procedure, Neonate.*

INTRODUCTION

Newborns constitute the foundation of nation, healthy newborns are likely to evolve as physically and mentally strong adults with enhanced quality of human resource development.[5] Alleviation of pain is the basic right of every individual. All newborns including normal ones experience pain in the first days of life, commencing vaccinating injection and blood collections. Neonates admitted in NICUs are constantly exposed to pain and discomfort for different reasons.[6] The IASP describes pain as unpleasant sensory and emotional experience associated with actual or potential tissue damage or describe in terms of such damage".[7]

Every newborn baby is given the heel prick within the first couple of days after birth. Blood collection of the neonate via heel prick is a common procedure carried out by the health professionals. It includes making a small shallow prick in the heel and collecting a drop or drops

of blood for investigations. Studies shows that neonates find heel prick more painful than other blood collection techniques.[8]

So many modalities are upcoming eg:- oral sucrose solutions, breast feeding, music therapy and kangaroo mother care to reduce pain duing heel lancing procedure. Swaddling is also a method which helps to reduce the pain being perceived by the neonates during the invasive procedure. Other advantage of swaddling is that it does not always require the mother to be the one who swaddles the baby but it can be done by others caring for the baby. The nurse herself can swaddle the baby during the invasive procedure as the neonate has been pre-feed. So that this method can be easily used in all NICUs and less time consuming.[9]

REVIEW OF LITERATURE

The reviewed literature for the present study were organised under the following headings-

1. Literature related to pain and its management in neonates during heel lancing

2. Literature related to swaddling and pain management

1. **Literature related to effect of selected measures on pain during heel lancing:** A randomized study by Hsueh Fang Peng (2017) on combine effect of non nutritive sucking, breast feeding and facilitated tucking gives evidence that combination of these three have positive effect on pain during heel prick .[10]

2. **Literature related to swaddling and pain management:** A research conducted by Shahin Dezhdar, Faezeh Jahanpour and etall (2016) on the Effects of Kangaroo Mother Care and Swaddling on Venipuncture Pain in Premature neonates. Research done on 90 premature infants. Pain assessed by using PIPP scale.The findings shows that pain was reduced to a great extent in the swaddling and KMC methods compared to the control group.[11]

RESEARCH METHODOLOGY

Research Approach: In order to achieve the desired objective of the study a Quantitative research approach was adopted for this study

Research Design: quasi experimental - post test only control group design is used for present study.

Variables: INDEPENDENT VARIABLE independent variable is swaddling **DEPENDENT VARIABLE** In this study, the dependent variable is pain.

Setting: Bharati hospital and medical college, sangli, Amanapure hospital miraj, and wanless hospital Miraj were selected for this study.

Sample and Sampling Technique: The sample size was calculated by using power analysis. The present study consisted of 60 samples. Non probability purposive sampling technique is used.

Relibility: NIFC is a standard tool with reliability of 0.88 by using interobserver reliability method as per the reference of research done by Ruth V.E. Grunau and Kenneth D. Craig , Pain expression in neonates: facial action and cry in 1987.[12]

Pilot Study: The pilot study was conducted in Bharati hospital sangli and Amnapure hospital miraj to assess the feasibility of the study. After the pilot study, tool was found feasible, and gave better insight to the investigator.

Method: prior permission was taken from concerned authorities. Informed consent was taken from sample after explaining purpose and objectives of the study. In experimental group neonate is swaddled first in blanket. Site is prepare with spirit swab .heel lancing procedure is done . pain scale is assessed during heel lancing. In control group child is kept in supine position without swaddling. Site prepared with spirit swab. Heel lancing procedure is performed and pain scale assessed during heel lancing procedure.

PROCEDURE OF DATA COLLECTION

A prior permission were taken from concerned authorities .Informed consent was taken In experimental group neonate is swaddled first in blanket. Site is prepare with spirit swab .heel lancing procedure is done . pain scale is assessed during heel lancing. In control group child is kept in supine position without swaddling. Site prepared with spirit swab. Heel lancing procedure is performed and pain scale assessed during heel lancing procedure.

DISCUSSION AND RESULTS

The mean pain score of control group is 7.2 and experimental group is 3.7. Both group mean is compared by using Z-test. The mean pain score was less in experimental group. Which shows that the babies who received swaddling during heel lancing experienced less pain than the babies who did not received swaddling. Z –value is 16.06 and P- value is 0.0001 which is less than 0.05 which shows that there is significant difference in pain score with swaddling. This indicates the effectiveness of swaddling in reducing pain during heel lancing procedure.

CONCLUSION

Analysis and interpretation was done on data collected from 60 neonates, Frequency and percentage distribution done for demographic variables. Effectiveness of swaddling done by comparing mean of pain score in control and experiment group which showed that the swaddling was effective as the p value is less than 0.05.

Conflict of Interest: Nil

Source of Funding: Self funding

Ethical Considerations: Ethical committee letter were submitted to the Bharati Vidyapeeth (to be Deemed) University, Pune and obtained permission from university to conduct the research. Permission from concerned authority and parent of each sample were obtained before data collection.

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A Study to Assess the Impact of Home Based Education on Life Style Modification among Adults with Diabetes Mellitius at Selected Villages in Kancheepuram District, Tamil Nadu, India

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ABSTRACT

The aim of the study is to educate the adults with diabetes mellitus on low carbohydrate diet and to evaluate the impact of home based education on lifestyle changes. With single blindered randomized controlled trial and self structured interview questionnaire the data was collected among 400 (200 study +200 control) diabetic subjects in Maraimalai Nagar and 9 villages around Kancheepuram district. After the baseline screening the study group subjects were educated with low caloric diet menu plan according to BMI, and a booklet on all aspects of managing diabetes mellitus was also issued to them. Nutritional counseling was given every 15 days for 3 months. The post test revealed an absolute reduction in history of smoking (p<0.001), history of drinking (P<0.001) and history of eating out side food (p<0.03) compared to control group. Eating rice for breakfast was reduced and eating chapatti was increased among the intervention group with (p<0.001).

Overall the finding of the study concludes there are significant changes on life style practice after individual video teaching and dietary counseling among the intervention group. The study suggested that nutritional counseling and healthy life style factors must be taught by all health care professionals to increase awareness and to control diabetes mellitus among Indian population.

Keywords: *Home based education, Life style changes, Nutritional counseling, Diabetes mellitus, Diabetic subjects, Health care professionals*

INTRODUCTION

India is one of the developing country which moves faster from traditional life style to western culture. Diabetes mellitus is one of the hereditary disease which leads to major complications. Glucose level is increasing slowly with gradual onset among clients with diabetes mellitus[1].In the present scenario most of the people are presenting with pre diabetes[2.] Over weight and obesity is associated with diabetes mellitus and it is more among women[3, 4]. People with age above 65 years are more affected with diabetes mellitus. Also it is common among people with low socio economic group and those who are illiterate and ignorant about excessive calorie intake, inadequate expenditure with sedentary life style. In rural areas medical facilities are lacking.[5] Adult people are prone for reduced insulin secretion from the pancreas and insulin is not utilized properly in the muscle and fat cells[6]. This leads to excessive glucose level in the blood. When fatty acids are oxidized to produce energy, ketone bodies are released and it may lead to ketoacidosis and diabetic coma[7].

In India some of the diabetic subjects and others eat rice three times a day. Also people working in hotels are eating hotel food daily. Niamb Dowling stated that sugar intake and saturated fat intake has been increased in all age group [8] . Fruits and vegetables consumption is inadequate among all people [9,10]. Most of the men are smoking and consuming unlimited alcohol when they are in stress due to loss of life partner or friends. Also the lower socio economic group people are not able to adjust with increased health care cost and healthy life style practice.[11] Mostly diabetic's patients are admitted twice than non diabetic people in emergency department, medical wards and intensive care unit[12].

By avoiding tobacco, increasing physical activity, eating healthy foods more deaths can be prevented[13]. Home based care and diabetes management promotes healthy life style and reduces the negative impact of the disease on the family[14]. Consuming whole grains provides evidence for decreased rise to cardiovascular disease and type II diabetes mellitus[15]. Research reveals diabetic knowledge improvement after behavioral skills and diabetes self care education.[16,17] However after nutritional counseling the participants adapt to wheat product and vegetables consumption with their regular medication and hence the study helped them to understand the importance of life style changes and blood glucose control.

MATERIALS AND METHOD

This study aimed to assess the impact of home based education programme on life style practices among the diabetic subjects. A randomized controlled trial with quantitative approach was used in this study. The setting of the study was selected in Maraimalai nagar and 9 villages at kancheepuram district, Tamil Nadu. Men and women around 400 participants (200 study+200 control) who were on regular medication for 3 months were enrolled in the study after understanding and signing the informed consent. The data was collected by the researcher on regular home visit for one year. Formal approval was obtained from Institutional Review Board and Institutional Ethical committee of SRM university. Ethical clearance number: 427/IEC/2013.

The tool used for this study consist of baseline screening which includes age, gender, occupation, education, marital status, monthly income of family, type of housing, parental history, duration of illness. A self structured interview questionnaire on life style practice such as history of smoking, history of alcoholism, dietary pattern, habit of eating outside food, breakfast items such as rice, milk, idly, dosa, kanjee, chapatti and uppma were included in diet practice. Each question were given a score of yes=1, no=0. The villages were selected by computer generated lottery method for the study and control group.

After doing the pre test with standard instrument individual video teaching on diabetes mellitus was given to the participants weekly once for 4 consecutive weeks in their home. A diet menu plan was issued and explained according to BMI. After every 15 days their diet pattern was counseled by the researcher. After 3 months the post test was done with the same tool. Per day around 6-10 patients were interviewed and the education was re inforced and it consumed around 20-25 minutes per subject. The data was collected for study and control group in different villages and there by the contamination was prevented. The collected raw data was entered into the master coding sheet and saved in excel and it was analyzed using MC- Namara's chi-square test by statistical package for social sciences (SPSS-16). The p value of 0.05 level was used for statistical significant.

RESULTS

The distribution of socio demographic between study and control group was similar. Majority of the participants were between 60-69 years (45.5%), female (73.0%), sedentary worker (68.5%), illiterate (32.0%), married (90.0%), maximum monthly income Rs.3001-6000 (37.0%) and participants living in pucca housing were (50.5%). Regarding duration of illness majority (58.5 %) of them had the disease for 2-5 years and all the subjects were with type11 diabetes mellitus.

Table 1: comparison of life style factors on home based education programme among patients with diabetes mellitus in study and control group.

Among 200 subjects in study group, at pre test (80.5%) were not smoking, (19.5%) were smoking, where as in post test majority (94.5 %) were not smoking and (5.5%) were smoking, it was significant with (p<0.001). In control group among 198 subjects, at pre test (85.9%) were not smoking (14.1%) were smoking where as in post test (86.9%) were not smoking and (13.1%) were smoking.

Regarding history of alcoholism about study group in the pretest, (89.0) had no history of alcoholism, (11.0%) had history of alcoholism and the post test revealed maximum reduction (97.5%) in no history of alcohol consumption, (2.5%) were consuming alcohol and it was significant with (P<0.001). where as in control group in the pre test (90.9%) of them were not consuming alcohol and (7.1%) of the participants were having the habit of consuming alcohol.

With regard to dietary pattern most of the participants in both group are non vegetarian approximately (94.5%) and eating vegetarian food were (5.5%) in both group and it was statistically not significant with (p>0.05). About habit of eating outside food in study group before intervention (72.0 %) of them, were not eating outside food and in post test (81.0%) were not eating out side food and it was significant with (P<0.03%), where as in control group in post test approximately (72.2%) participants were not having the habit of eating outside food and it was not significant with (P>0.91). This was tested by using MC Namara's chysquare test.

Table 1: Frequency and percentage distribution of clinical parameters (life style factors) between Pre test and Post test among patients with diabetes mellitus in study group and control group

N = 398

Life Style factors	Study group (n = 200) Control group (n = 198)		Pre test		Post test		McNamara's chi-square test-P Value
			n	%	n	%	
History of Smoking	Study group	No	161	80.5	189	94.5	0.001*
		Yes	39	19.5	11	5.5	
	Control group	No	170	85.9	172	86.9	0.76
		Yes	28	14.1	26	13.1	
History of Alcoholism	Study group	No	178	89.0	195	97.5	0.001*
		Yes	22	11.0	5	2.5	
	Control group	No	180	90.9	184	92.9	0.46
		Yes	18	9.1	14	7.1	
Dietary Pattern	Study group	Vegetarian	11	5.5	14	7.0	0.53
		Non vegetarian	189	94.5	186	93.0	
	Control group	Vegetarian	10	5.1	10	5.1	1.00
		Non vegetarian	188	94.9	188	94.9	
Habit of eating outside food	Study group	No	144	72.0	162	81.0	0.03*
		Yes	56	28.0	38	19.0	
	Control group	No	142	71.7	143	72.2	0.91
		Yes	56	28.3	55	27.8	

* significant at P≤0.05

Table 2: Frequency and percentage distribution of clinical parameters (diet practice) between Pre test and Post test of clients with diabetes mellitus in study group and control group

N = 398

Diet	Group		Pretest		Posttest		McNamara's chi-square test-Pvalue
			N	%	n	%	
Breakfast	Study group (n = 200)	Rice	54	27.0	23	11.5	0.001*
		Milk	5	2.5	9	4.5	
		Idly	79	39.5	66	33.0	
		Dosa	41	20.5	41	20.5	
		Kanjee	3	1.5	1	0.5	
		Chapatti	16	8.0	60	30.0	
		Uppma	2	1.0	0	0.0	
	Control group (n = 198)	Rice	44	22.2	44	22.2	0.78
		Milk	3	1.5	3	1.5	
		Idly	73	36.9	81	40.9	
		Dosa	55	27.8	43	21.7	
		Kanjee	3	1.5	2	1.0	
		Chapatti	18	9.1	25	12.6	
		Uppma	2	1.0	2	1.0	

* significant at P ≤ 0.05

Among 200 participants in study group after 3 months intervention participants consuming rice were reduced from (27.0%) to (11.5%), those who use milk was increased from (2.5%) to (4.5%), those who ate idly for breakfast was reduced from (39.5%) to (33.0%), those who ate dosa was the same in pre and post test (20.5%), those who consumed kanjee was reduced from (1.5%) to 0.5%, those who changed to chapatti had increased from (8.0%) to (30.0%), and those who consumed uppma had reduced from (1.0%) to none. It was analyzed by using MC Namara's chi-square test and significant change is found in the post test with p value of (p<0.001)

Where as in the control group among 198 participants in the post test participants consuming rice were (22.2%) in pre and post test, those who used milk was the same in the pre and post test (1.5%), those who ate idly was reduced from (36.95 to 21.7%), those who consumed kanji was reduced from (1.5% to 1.0%), those who consumed chapatti was increased from (9.1% to 12.6%) and those who consumed uppma were the same (1.0%) in pre and post test. There is no statistical significance with (P>0.05) in control group.
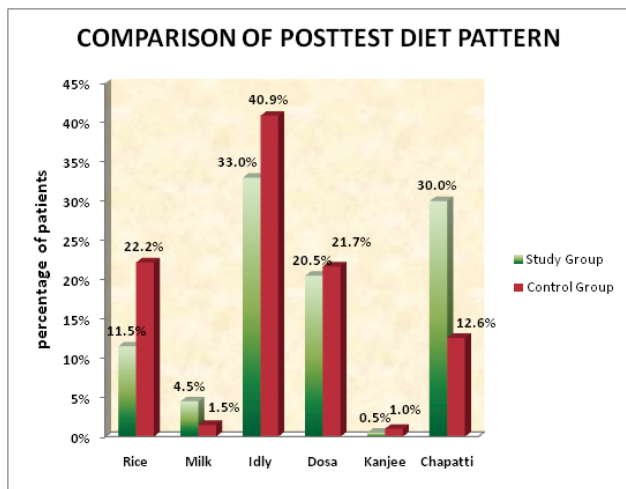

Fig. 1:

This diagram shows the comparison on diet practice in the post test between the study group and control group.

DISCUSSION

In this present study dietary menu plan according to BMI and video teaching program me on all aspects of disease condition and treatment was target to the diabetic subjects. The result of the study revealed significant changes on life style practice among the participants by home based diabetic education and there was a significant change found on smoking habits, drinking habits and habit of eating out side food in post test of study group comparing to control group. Also the diet practices of the study group participants showed significant changes on breakfast with reduction on eating rice for breakfast, but eating chapatti increased from baseline (8.0%) to (30.0%).

Also the study created awareness to adhere low caloric diet, stretching exercise and regular medication to control glucose and to prevent keto acidosis. The findings of the study correlates with the study done by Aklima etal., (2011), revealed dietary self management improved (P<0.05)[18], also it is consistent with the study of valliot B etel ., (2013) showed reduction of tobacco consumption and improvement in physical activity and systolic blood pressure with (P<0.001).[19] Also it is consistent with the study of Gracy L J etal (2013) stated smoking status, physical activity, quality of life, belief about illness depreciation, emotional impact of diabetes mellitus and drug use improved.[20] Also it goes congruence with Chandra etal (2009) quoted diabetes knowledge improved (P<0.05).[21] This study disseminates that education should continuously focus on diet and lifestyle practices among the diabetic subjects in urban and rural population to prevent foot ulcer and silent ischemia.

CONCLUSION

The present study is associated with life style practice and diabetes mellitus. Home based education with video education and nutritional counseling had brought significant changes on life style practice of participant, hence the hypothesis framed was proved. Therefore, the study recommends that public policies must be strengthened to generate home based education on diabetes mellitus in urban and rural population. So that diabetic subjects can have close monitoring on their dietary practice, life style practice, glucose control and drug compliance which may help them to lead a quality life without micro and macro vascular complications.

Guarantor Statement: T.S is the guarantor of this word and has such had full access to all the data in the study and takes responsibility for the integrity of the data and the accuracy of the data analysis.

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A Study to Assess the Knowledge on AIDS/HIV among Adult Patients at SRM General Hospital, Kattankulathur

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ABSTRACT

AIDS has become a major health care problem in India with an estimated 34 million people suffering from the condition, representing the largest number of any country in the world. Hence it is necessary to assess the knowledge on aids among the adult population to establish preventive strategies'.

Objectives

1. To assess the knowledge on AIDS/HIV among the adult out patients at SRM General Hospital, Kattankulathur.

2. To associate the knowledge on AIDS/HIV among the adult out patients with their demographic variables.

Method: A Cross-sectional study was conducted at SRM General Hospital, Kattankulathur, during the month of December 2017. Data was collected from the patients who attended the out patients department. Above 20 years- 40 years of aged patients were included in this study. Self structured interview questionnaire was used to collect the data. Using The participants were educated with video programme and posters SPSS version -16 the data was analyzed, frequencies were calculated and values were determined to find the victim between the variables.

Result: The result of the study concludes that (26%) outpatients were having poor knowledge (60%) of outpatients with moderate knowledge and (14%) outpatients with high level knowledge regarding AIDS. There was no significant association found between the knowledge on AIDS and with the demographic variables

Conclusion: The present study on knowledge on AIDS/HIV among adult population concludes AIDS is prevalent among adult population in all regions. There is an urgent need to educate the patient with handout and posters to create awareness about transmission and management of AIDS.

Keywords: AIDS/HIV, knowledge, adult out patients, prevalent, health education

INTRODUCTION

AIDS/HIV is a dreadful disease which is prevalent worldwide. It is a immune compromised disease caused by human Immune virus that leads to mortality and morbidity. It mainly affects the adult population who are ignorant about the spread of this disease. This disease spread through infected needles and unscreened blood transfusion which are handled by medical personals and others. Also it is common among multiple sex partners and people those who indulge in drug abuse. Majority of the people are not aware of safe disposal of used needles and razor which are used for the patients.

Globally approximately 34 million people are living with HIV/AIDS.[1] Also 1.8 million individuals become newly infected in 2016 and with 5,000 new infections per day. Around 1.1 million people are diagnosed with Aids in the United States. In India 2.08 million people were living with AIDS in 2011.India spends about 5% of health budget on HIV/AIDS. [2] WHO reported more than 70 million people have been infected with the HIV virus and about 35 million people have died with HIV.[3]

AIDS will not spread by air, cough, droplet infection. It is not spread by hugging, kissing or by shaking hands. Also it is not spread by animals or insects. Low procurement of condoms is contributing to negative effect of health education. Opportunistic infections like tuberculosis, upper respiratory infection, urinary tract infection and cancer leads to low immunity.

Cytomegalo virus infection is serious and it causes vision loss, microcephaly, behavior issues, mental disability cerebral palsy, seizures and death among children. Patients with aids present with fever, cough, tiredness, hunger, night sweating and weight loss and loss of appetite. Since treating AIDS patients is costly people with low economic status finds difficulty to continue their treatment.[4]

It is important to provide adequate knowledge to the vulnerable people to protect from the risk of AIDS. The lack of awareness and misconceptions about AIDS is responsible for social stigma among the public. Studies reveals educational interventions can reduce the lack of knowledge among health care professionals.[5,6]

One of the study among medical students quoted that almost half of the students did not know the preventive measures of HIV nearly two third had misconception, about one third of the students did not know the mode of transmission[.7] HIV mostly affects the reproductive and productive age groups. Studies revealed men were less aware of HIV infection. Also people who use alcohol and drugs are at high risk in transmitting HIV to others.[8,9]

Attention to be paid to public's knowledge and perception of the disease.[10] Nurses must empower knowledge and develop skills to care the AIDS patients.[11]

Since the theme for World Aids Day 2017 is "Right to health", the investigators discern the need to identify the knowledge on Aids among adult population and to create awareness among them.

With this background, the present study was conducted with the objective to assess the knowledge on Aids among adult population in the outpatient department at SRM general hospital.

MATERIALS AND METHOD

It was a cross-sectional study based on knowledge assessment of AIDS/HIV. Data was collected from 117 adult patients, above 20 to 40 years of age during study period were enrolled in the study. Adult outpatients, above 20 to 40 years of age, and appearing for check-up at SRM General Hospital, Kattankulathur, Kancheepuram dist, were eligible but those who did not consent to participate in the study were excluded. The setting was chosen in the basis of feasibility in terms of availability of samples and co-operation extended by the outpatients and the management. Non Probability convenient Sampling technique was adopted for selecting the samples for the study. One hundred and seventeen (43 male + 74 female) patients, who were fulfilling the eligibility criteria, were interviewed by using self structured interview questionnaire.

The permission was obtained from Dean, SRM college of Nursing and authorities of the selected department. After obtaining formal approval from the administration of SRM General Hospital, Informed consent was obtained from each participant of the study before starting data collection. Assurance was given to each subject that anonymity of each individual would be free to withdraw from the study at anytime.

Data collection was done within the given period of time among outpatients during day time. Self introduction about the researcher and details about the study was explained to the Samples and their consent was obtained. After the data collection the participants were educated with video teaching and posters on transmission, signs and symptoms, prevention and treatment of aids disease. The data collected was entered and analyzed by using a statistical package SPSS.11.0. For descriptive analysis frequencies were calculated and chysquare p-value was calculated to determine statistical associations.

RESULTS AND DISCUSSION

Analyzed data are presented in the following sections:

Table 1: Frequency and Percentage distribution of adult out patients.

Table 2: Frequency and Percentage distribution of knowledge of adult out patients on AIDS/HIV

Table 3: Association of selected demographic variables and knowledge on AIDS/HIV among adult out patients.

Table 1: Frequency and percentage distribution of adult out patients

N = 117

Variables			No.	%
Age	a.	< 20years	8	7%
	b.	21-25years	13	11%
	c.	26-30years	18	16%
	d.	31-35years	17	15%
	e.	36-40years	61	51%

Conted…

Gender	a	Male	43	36%
	b.	Female	74	64%
Place of origin	a.	Urban	65	56%
	b.	Rural	52	44%
Education status	a.	No formal education	13	11%
	b.	Primary school	18	14%
	c.	Middle school	23	20%
	d.	High school	27	21%
	e.	Graduate	43	35%
Family history of chronic illness	a.	Yes	25	24%
	b.	No	88	76%

Table 1 reveals the frequency percentage distribution of adult outpatients in accordance with their age, gender, place of origin, education status and family history of chronic illness.

In a total of 117 adult out patients the age range of the patients was from 20 to above 40 years. Among them < 20 years were 8 (7%), between 20-25 years were 13 (11%), between 26-30 years were 18 (16%), between 31-35 years were 17 (15%), between the age group 36-40 years were 61 (51%).Among them 74 (64%) women and 43 (36%) were males.

Regarding the place of origin 65 (56%) were living in urban community and 52 (44%) were living in rural community. With respect to education status 13 (11%) has no formal education, 18 (14%) has primary school education, 23 (20.0%) underwent middle school education, 27(21.0%) outpatients completed high school and 43 (35%) patients were graduate.

Considering the family history of chronic illness 25 (24%) of them has no history of chronic illness and 88 (76%) of them had history of chronic illness.

Table 2: Frequency and Percentage distribution of adult out patients knowledge on score

N = 117

Category	Score	%
0-6 poor	30	26
7-12 moderate	71	60
13-17 high	16	14

Table 2 reveals the percentage distribution of adult outpatients knowledge score on Aids disease transmission. Among 117 participants 30 (26%) of them were having poor knowledge level, 71 (60.0%) were having moderate knowledge level and 14 (16.0% of them were having high level of knowledge on AIDS/HIV.

Table 3: Association of selected variables and knowledge on AIDS/HIV among adult out patients

(N = 117)

Variables			Poor knowledge level	Moderate knowledge level	High knowledge level	X² Value and P Value
Age	a.	<20years	0	5	3	X² = 11.82 p = 0.1
	b.	21-25years	2	9	2	
	c.	26-30years	5	12	1	
	d.	31-35years	4	12	1	
	e.	36-40years	11	47	3	
Gender	a.	Male	5	32	6	X² = 1.80 p = 0.4
	b.	Female	14	54	6	
Place of origin	a.	Urban	9	48	8	X² = 0.68 p = 0.7
	b.	Rural	8	40	4	
Education status	a.	No formal education	1	12	0	X² =12.28 p = 0.1
	b.	Primary school	3	13	2	
	c.	Middle school	8	14	1	
	d.	High school	4	21	2	
	e.	Graduate	4	30	9	
Family history of chronic illness	a.	Yes	2	18	5	X² = 2.56 p = 0.3
	b.	No	15	64	9	

Not significant at P >0.05

DISCUSSION

AIDS/HIV is a communicable disease which spreads faster in India. This disease leads to suppression of vital organs and it reduces the life span of people who are affected. Due to the death of parents with Aids many children became orphans and homeless. This is a critical situation for the children to study further and to decide about their future. India is facing a lot of economical problem to help the people affected with Aids and their families.

It is the ethical responsibility of medical and nursing staff and students to involve in the education, management and prevention of this disease. Personal attitude and experience should be improved to maintain a patients right confidentiality and involvement in decision making and nusing care.[12] Health care workers has a continuous role among females and the high risk population.[13]

The present study assessed the knowedge of Aids among adult patients attending out patients department of SRM General Hospital.The result of the study revealed that out of 117 participants regarding the age group majority of them were between 36 – 40 years (51%), also majority of them were women (64%). Majority of them living in urban community (56%).

Regarding the knowledge on Aids awareness the analysis revealed among 117 participants 30 of them (26%) had poor knowledge, 71 of them (60%) had moderate knowledge and 16 (14%) of them had high level of knowledge regarding Aids disease.

There is no association on knowledge on aids transmission with selected demographic variables like age, gender, place of origin, education status and family history of chronic illness.

These findings are consistent with the study done by Rizwan S A etal .,(2015) that (60%) of the population did not have comprehensive knowledge and their mean knowledge score was (14.7) .[14] policies should be developed to emphasis on health education and free treatment to the affected people with AIDS.[15] The study recommend to do urgent interventional studies to tackle this situation and to fill the knowledge gaps from migrant workers that may prove vital to prevent further spread of AIDS/HIV through out the country.

CONCLUSION

The present study is associated with knowledge and Aids disease. The present study on knowledge on Aids disease revealed that 26% of outpatients had poor knowledge and 60.0% of outpatients had moderate knowledge and 14.0% of outpatients had high level knowledge. It can be concluded from the present study that people are still ignorant about the causes and prevention of Aids disease. We, therefore recommend that health education should be reinforced among the general population to empower knowledge and to prevent Aids disease. Hence, healthcare members should create awareness about prevention and management of Aids disease.

Conflict of Interest: The authors declared no competing interests.

Ethical Approval: Formal approval was obtained from Institutional Review Board and Institutional Ethical committee of SRM Institute of science and technology.

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Stress Level among Adolescents Related to Development of Secondary Sexual Characteristics in a Selected Secondary School in Mangalore

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ABSTRACT

Puberty begins with a surge in hormone production, which in turn causes a number of physical changes. This is triggered by the pituitary gland, which secretes hormonal agents into the blood stream. Put simply, puberty is the time when a child's body starts changing into an adult's body. The title of the study, "Stress level among adolescents related to development of secondary sexual characteristics in a selected secondary school in Mangalore". The objectives include, identifying the level of stress among adolescents and to compare the level of stress among adolescent boys and girls related to development of secondary sexual characteristics. The research study was conducted in Vishwa Mangala High School, Konaje and population comprised of 25 adolescents' boys and 25 adolescent's girls studying in the 9th standard.

The study results shows that, 25 (100%) of the adolescent boys were in Hindu religion, whereas 20(80%) of the adolescent girls were in the Hindu community. 25 (100%) of both adolescent boys and girls were living with parents. Among 15(60%) of the adolescent boys had only one sibling whereas, 10 (40%) of the adolescent had more than one sibling. Area wise stress level shows, in question no 1i.e, In the last month how often have you been upset because of physical changes such as voice, hair growth and acne that happened unexpectedly, there are 12 boys who rated they are sometimes bothered with the physical changes that happened in the body. The study concluded that, the level of stress shows, there were no adolescent boys or girls were fall into the category of mild stress. But, there are, 10(40%) of the boys were in the category of moderate stress and 15(60%) of the boys are in severe stress related to the development of secondary sexual characteristics.

Keywords: *Adolescents, stress, secondary sexual characteristics*

INTRODUCTION

Adolescent period is the second decade of life. It is a crucial and dynamic time in the lives of all people, when puberty is experienced. Adolescence may be defined as the period within the life span when most of a person's biological, cognitive, psychological, and social characteristics are changing from what is typically considered childlike to what is considered adult-like[1]. For the adolescent, this period is a dramatic challenge, one requiring adjustment to changes in the self, in the family, and in the peer group. This may sometimes cause stress among the boys and girls. During the last decades, the adolescent environment has been changing dramatically due to media such as television and internet, public transport, violence, pollution, substance abuse and parental divorce which might directly influence the adolescents' stress experience[2]. In turn, adolescent stress is related to several health complaints like headache, abdominal pain, backache and depressive symptoms.

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Adolescence is time of great change and transition for teens and parents alike; it is the period when an individual first begins to let go of childish ways in an effort to embrace adult behavior[3]. The transitional period of being and adolescent to an adult is always an eventful time of both the boys and girls. At the present rapid changing society parents and teachers are less concerned or may neglect these changes in the boys and girls, as this may leads to problems in the development and may cause maladaptive issues among them[4]. Recent stressful life events were associated with increased depressive symptoms and early maturing girls with higher levels of initial symptoms and more recent stressful life events were most likely to be depressed subsequently[5]. Since, Adolescent period is the challenging transitional period for many young people. These transformations lead to unnecessary stress, anger, and low self esteem resulting in low academic performance, and disruptive behavior in school and at home. Thus, the researcher felt to assess the health status of adolescents in the present era on the effects of secondary sexual characteristics.

Over the last two decades, the research base in the field of adolescent development has undergone a growth spurt. Knowledge has expanded significantly. New studies have allowed more complex views of the multiple dimensions of adolescence, fresh insights in to the process and timing of puberty and new perspectives on the behaviors associated with the second decade of life[6,7].

Adolescence is a time of unevenness and paradoxes marked by extensive personal changes. The beginning of adolescents is said to correspond to the onset of puberty when primary and secondary sexual developments make their first appearance[8]. Hence some adolescents may have particularly difficult time of coping with the changes that occur. During this lengthy period of maturation, they may experience intense feelings of despair, anxiety, oppression, impatience, hopelessness and all adolescents are assumed to experience emotional turmoil, conflicts and risk taking behavior[9].

Since adolescent period is the challenging transitional period for many young people. These transformations lead to unnecessary stress, anger and low esteem resulting in low academic performance and disruptive behavior in school and at home[10]. Thus, the researcher felt to assess the stress level among adolescents related to secondary sexual characteristics.

Statement of the Problem: "A study on stress level among adolescents related to development of secondary sexual characteristics in a selected secondary school in Mangalore".

Purpose of the Study: The purpose of the study was to assess stress level among adolescents related to development of secondary sexual characteristics in a selected secondary school in Mangalore.

OBJECTIVES

1. To identify the level of stress among adolescents related to development of secondary sexual characteristics.

2. To compare the level of stress among adolescent boys and girls related to development of secondary sexual characteristics.

Hypotheses

H_1: There will be a difference between the level of stress among the adolescent boys and girls.

H_2: There will be an association between levels of stress among adolescents with selected demographic variables.

MATERIALS AND METHOD

Research Approach: Quantitative research approach was adopted by the investigator.

Research Design: A descriptive, comparative design was used to assess the stress level among adolescents.

Research Variable: Stress level among adolescents related to development of secondary sexual characteristics

Demographic Variable: Age, gender, age of menarche, religion, living with, area of residence, number of siblings, occupation of father, occupation of mother.

Research Setting: The research study was conducted in Vishwa Mangala High School, Konaje.

Population: The study population comprised of 25 adolescents boys and 25 adolescents girls studying in the 9th standard.

Sampling Procedure: The selection of sample was done by using purposive sampling technique.

Sample Size: The sample comprised of 25 adolescents boys and 25 adolescents girls

Instruments Used

1. Demographic proforma was used to collect baseline characteristics

2. Modified perceived stress scale was used to assess the stress level among adolescents related to the development of secondary sexual characteristics.

DATA COLLECTION METHOD

To conduct the research study, the investigator obtained written permission from the concerned authorities of the Vishwa Mangala High School. The data was collected on 6th of December 2016. The purpose of the study was explained to the students and informed consent was obtained. 26 Confidentiality was assured to all the subjects to get their co-operation. A total of 50 samples were taken for the study.

FINDINGS

1. **Distribution of demographic characteristics:** The data depicts that 25 (100%) of the adolescent boys were in Hindu religion, where as 20(80%) of the adolescent girls were in the Hindu community, Remaining students were in the Christianity group.25 (100%) of both adolescent boys and girls were living with parents. Among 15(60%) of the adolescent boys had only one sibling whereas, 10 (40%) of the adolescent had more than one sibling. 18(72%) of the adolescent girls had only one sibling whereas 7(28%) of the adolescent girls had more than one sibling. With regard to mothers occupation, 12(48%) of the mothers were house wife and 13(52%) of the boys mothers were self employed. Among 11(44%) of the girls fathers were daily wager and 14(56%) of the girls fathers were self employed.

Table I: Stress level among adolescents according to area wise

n = 50

Sl. No.	Question	Boys					Girls				
		0	1	2	3	4	0	1	2	3	4
1.	In the last month how often have you been upset because of physical changes such as voice, hair growth and acne that happened unexpectedly	2	8	12	2	1	11	14	0	0	0
2.	In the last month how often have you been felt that you were unable to control the important things in your life.	11	12	2	0	0	3	14	8	0	0
3.	In the last month hoe often have you felt that you were unable to control the feeling12 boys s towards the opposite sex in the last month	7	6	8	4	0	25	0	0	0	0
4.	In the last month how often have you felt nervous and stressed due to menstruation	14	11	0	0	0	12	13	0	0	0
5.	In the last month how often have you felt confident about you ability to handle your personal problems.	4	8	11	2	0	0	1	13	11	0
6.	In the last month how often have you found that you could not cope with your parents ideologies	7	3	13	1	1	24	0	1	0	0
7.	In the last month how often have you been able to control irritations in your life	5	5	3	6	6	12	13	0	0	0
8.	In the last month how often have you felt that you were able to establish your identity with opposite sex	2	3	9	11	0	0	0	4	15	6
9.	In the last month how often did you get angry because of things that were controlled by your parents?	8	9	7	1	0	7	18	0	0	0
10.	In the last month how often have you felt difficulties were piling up so high so that you could not overcome them	12	11	1	0	1	11	14	0	0	0

Table II: Compare the level of stress among adolescent boys and girls related to development of secondary sexual characteristics.

Level of stress	1-15 (Mild)	16-30 (Moderate)	31-40 (Moderate)
Boys	0	10	15
Girls	0	6	19

The data depicts that, there were no adolescent boys or girls were fall into the category of mild stress. But, there are, 10(40%) of the boys were in the category of moderate stress and 15(60%) of the boys are in severe stress related to the development of secondary sexual characteristics. Whereas, adolescent girls, 6(24%) were in the category of moderate stress and 19 (76%) of them were in severe stress related to the development of secondary sexual characteristics.

DISCUSSION

The findings of the present study were similar to another study conducted to assess the role of both pubertal and social transitions in the emergence of gender differences in depressive symptoms during adolescence. The study finding shows that gender difference in depressive symptoms emerged during 8th grade and remained significant through 12th grade. Pubertal status in 7th grade was related to adolescent depressive symptoms over time. Early maturing girls represented the group with the highest rate of depressive symptoms. Depressive symptoms measured in 7th grade predicted subsequent symptom levels throughout the secondary school years.

CONCLUSION

Based on the findings of the present study the following recommendations were put forward for future research.

1. A similar study can be replicated with larger sample size.

2. A similar study can be conducted among different standards of high school students and the comparison between the adolescents can do.

Nursing implications

1. The findings of the present study have implication in the field of nursing education, nursing practice, nursing administration and nursing research.

2. The findings of the study have shown that adolescents girls have severe level of stress in their pubertal period, thereby, the heath care professional can be the with the school children to give health education.

3. Teaching programs can be conducted for the better understanding of the body changes during puberty and with related to the reproductive system.

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Effectiveness of Intradialytic Leg Exercise on Fatigue and Activities of Daily Living

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ABSTRACT

A study was conducted "To evaluate the effectiveness of intradialytic leg exercise (ILE) on fatigue and activities of daily living (ADL) among patients undergoing Hemodialysis in IGGGH&PGI, Puducherry". The objectives were, to assess the existing level of fatigue and ADL among patients undergoing Hemodialysis, to evaluate the effectiveness of ILE on fatigue and ADL among patients undergoing hemodialysis, to correlate the post intervention level of fatigue and ADL among patients undergoing Hemodialysis and to associate the post test level of fatigue and ADL among patients undergoing Hemodialysis with selected demographic variables. The approach used for this study was quantitative approach and the design was Pre-experimental one group pretest post test design. A total of 30 samples were selected by using simple random sampling technique. MAF scale and Katz index of Independence were used to assess fatigue & ADLs. The result depicted that in the pretest, the mean score of fatigue was 40.30 ± 6.76, and mean post test score was 12.61 ± 7.56 and that of ADL was 3.13 ± 1.07 &5.43 ± 0.56 respectively. The calculated paired 't' value for pretest & post test fatigue (t = 29.257) and that of ADL (t = 15.057) was found to be statistically significant at p<0.001 level. The researcher concluded that structured and supported exercise programs during dialysis sessions are essential to foster a shift in thinking towards self care by improving fatigue among patients undergoing Hemodialysis.

Keywords: *effectiveness, intradialytic leg exercise, fatigue, activities of daily living*

INTRODUCTION

Kidney diseases are considered as **silent killers** which largely affect the quality of life the patients. About one in ten adults have some sort of kidney problems and can affect people of all ages and race.[1] The technological advance provides several renal replacement therapies like hemodialysis, peritoneal dialysis and renal transplantation.[2] Despite regular hemodialysis, the patients are still affected by some symptomatologies as side effect. Fatigue is one of the most common symptoms. Subsequent to fatigue, the patient's physical work capacity decreases by 50% in comparison with the healthy individuals.[3]

STATEMENT OF THE PROBLEM

"A Study To Evaluate The Effectiveness Of Intradialytic Leg Exercise On Fatigue And Activities Of Daily Living Among Patients Undergoing Hemodialysis In IGGGH&PGI, Puducherry."

OBJECTIVES

- To assess the existing level of fatigue and activities of daily living among patients undergoing Hemodialysis.

- To evaluate the effectiveness of intradialytic leg exercise on fatigue and activities of daily living among patients undergoing Hemodialysis.

- To correlate the post intervention level of fatigue and activities of daily living among patients undergoing Hemodialysis.

- To associate the post test level of fatigue and activities of daily living among study group with selected demographic variables

Hypothesis

- **H1:** There will be significant difference between pretest and post test level of fatigue and activities of daily living among study group

- **H2:** There will be significant association between post test level of fatigue and activities of daily living among study group with their selected demographical variables.

RESEARCH METHODOLOGY

The research approach adopted for this study was quantitative approach and design was pre experimental– one group pre test post test with multiple observation design. The study was conducted in Indira Gandhi Govt General Hospital And Post Graduate Institute, Puducherry. Population of this study included all the CKD patients who were undergoing hemodialysis in IGGGH&PGI, Puducherry and the samples were 30 patients undergoing hemodialysis, who were available during the period of data collection and fulfilling the inclusion criteria. Simple random sampling technique (Lottery method) was used to select the samples. The tools for data collection include demographic variables such as name, age, sex, marital status, education & occupation, clinical variables such as duration of Dialysis, level of hemoglobin and level of blood urea, Multidimensional assessment of Fatigue Scale and Katz Index of Independence in ADLs. The intradialytic leg exercise refers to the quadriceps knee strengthening exercise and gluteal strengthening exercise provided to the patients who are diagnosed to have chronic kidney disease and undergoing haemodialysis in IGGGH&PGI for about 30 minutes during the first 2 hours of hemodialysis for 2 sessions in one week for 2 weeks. On the day 1, the researcher 4 samples through lottery method, pretested and ILE was given. They post tested on the completion of 1st and 2nd week. The procedure was continued until the sample size reached 30. Approval and ethical clearance from the dissertation committee of Mother Theresa Post Graduate and Research Institute of Health Sciences, Puducherry was obtained before conducting the study.

RESULTS AND DISCUSSION

- The result depicted that in the pretest, the mean score of fatigue was 40.30 ± 6.76 and the post test (1st week) mean score of fatigue was 26.02 ± 5.79. The mean score of fatigue in the post test (2nd week) was 12.61 ± 7.56. The calculated paired 't' value of t = 26.519, t = 29.257 and t = 12.682 was found to be statistically significant at $p < 0.001$ level. (table 1)

Table 1: Pretest and post test level of fatigue among patients undergoing haemodialysis

n = 30

Fatigue	Mean	S.D	Paired 't' Value
Pretest	40.30	6.76	t = 26.519 p = 0.001, S***
Post Test (1st week)	26.02	5.79	
Pretest	40.30	6.76	t = 29.257 p = 0.001, S***
Post Test (2nd week)	12.61	7.56	
Post Test (1st week)	26.02	5.79	t = 12.682 p = 0.001, S***
Post Test (2nd week)	12.61	7.56	

***$p < 0.001$, S – Significant

- With respect to the activities of daily living, the result showed that in the pretest, the mean score of activities of daily living was 3.13 ± 1.07 and the post test (1st week) mean score of activities of daily living was 4.43 ± 0.62. The post test (2nd week) mean score of activities of daily living was 5.43 ± 0.56. The calculated paired 't' value of t = 8.963, t = 15.057 and t = 9.327 was found to be statistically significant at $p < 0.001$ level. **(table 2)**

Table 2: Comparison of pretest and post test level of activities of daily living among patients undergoing haemodialysis

n = 3 0

Activities of Daily Living	Mean	S.D.	Paired 't' Value
Pretest	3.13	1.07	t = 8.963 p = 0.001, S***
Post Test (1st week)	4.43	0.62	
Pretest	3.13	1.07	t = 15.057 p = 0.001, S***
Post Test (2nd week)	5.43	0.56	
Post Test (1st week)	4.43	0.62	t = 9.327 p = 0.001, S***
Post Test (2nd week)	5.43	0.56	

***$p < 0.001$, S – Significant

- Regarding the correlation between fatigue and activities of daily living, the study result depicted that the relationship between post test (2nd week) fatigue and activities of living score with an r value

of r = -0.509 showed a negative correlation which was found to be statistically significant at p<0.01 level. **(table 3)**

Table 3: Correlation between post test level of fatigue and activities of daily living score among patients undergoing Hemodialysis

n = 3 0

Variables	Mean	S.D.	'r' Value
Post test (2nd week) (Fatigue)	12.61	7.56	r = -0.509
Post test (2nd week) (ADL)	5.43	0.56	p = 0.04, S**

**p<0.01, S – Significant

- The result showed that the clinical variable duration of dialysis and level of hemoglobin had shown statistically significant association with level of fatigue at P<0.05 level and level of blood urea had shown statistically significant association with level of activities of daily living at P<0.01 level. **(table 4 and table 5)**

Table 4: Association of post test level of fatigue among patients undergoing hemodialysis with clinical variable level of hemoglobin

n = 30

Demographic variable	Moderate		Severe		Very severe		Chi square value
Level of Hb	No	%	No	%	No	%	$\chi^2 = 9.759$
>10 mg/dl	0	0	0	0	1	3.3	d.f = 4
7-10 mg/dl	5	16.7	2	6.7	4	13.3	p = 0.045
<7 mg/dl	2	6.7	12	40.0	4	13.3	S*

P<0.05

Table 5: Association of post test level of activities of daily living among patients undergoing hemodialysis with clinical variable level of blood urea.

n = 30

Demographic variable	Severe impairment		Moderate impairment		Full function		Chi square value
Level of blood urea	No	%	No	%	No	%	$\chi^2 = 9.674$
≤80 mg/dl	0	0	3	10.0	6	20.0	d.f = 2
80-100 mg/dl	0	0	0	0	4	13.3	p = 0.008
>100 mg/dl	0	0	13	43.3	4	13.3	S**

P<0.01

CONCLUSION

In the present study, the mean pretest level of fatigue is 40.30±6.76 and that of Activities of daily living is 3.13±1.07 respectively. The mean post test (2nd week) level of fatigue is 12.61±7.56 and that of Activities of daily living is 5.43±0.56 respectively. The calculated 't' value for fatigue is 29.257 and it is found to be statistically significant at p<0.001 level. The calculated 't' value for activities of daily living is 15.057 and it is statistically significant at p< 0.001 level. So from the present study, it can be concluded that intradialytic exercise has a significant effect on improving fatigue and activities of daily living among patients undergoing hemodialysis.

Ethical Clearance: Taken from Institutional ethical committee

Source of Funding: Self

Conflict of Interest: Nil

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