AMALA COLLEGE OF NURSING
AQAR (2023-2024)

CRITERION 2 – TEACHING- LEARNING AND EVALUATION

Key Indicator 2.3 – Teaching- Learning Process

Metric No. 2.3.5.- The teaching learning process of the institution nurtures creativity, analytical skills and innovation among students

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Amala COLLEGE OF NURSING

(An undertaking of Amala Cancer Hospital Society)
Amala Nagar, Thrissur – 680 555, Kerala
First Nursing College accredited by NAAC with A grade in the first cycle (RAF)
Affiliated to Kerala University of Health Sciences and recognized by Kerala Nurses and Midwives Council & Indian Nursing Council
(Certificate No. 18-16/2893-INC)

STUDENT RESEARCH PROJECTS 2023-2024

Sl.No	Title of the project	Name of the student and guide
1	A study to assess the knowledge regarding First -Aid management of drowning among high school students in selected schools in Thrissur with a view to develop a video assisted teaching	Alphonsa Sebastian et.all | Alwin M Thomas ,Amritha Johnson, Anagha V, Angel Rose Shaji,Shaly Joseph Pullen (Guide) [Rajee Reghunath]
2	A descriptive study to assess the knowledge of mothers regarding the health hazards of mobile phone among under five children in Amala Medical college hospital,Thrissur	Anjana K B et.all | Anjana Kuriachan,Anjana T T,Anjitha Shaji,Anju Sani,Maria E.J (Guide) [Rajee Reghunath] | [Kerala University Of Health Sciences].
3.	A study to assess the effectiveness of incentive spirometry among post operative patients in Amala Institute of medical science,Thrissur	Annmaria T.O.et.all | Ann Mariya Dominic,Ann Mariya Shyju, Ann Mariya Johnson,Ardhra Viswanath P V, Rosariyo Anto (Guide) [Rajee Reghunath]
4	A study to assess the Physiological and Phychological changes among perimenopausal women in selected community,Thrissur	Arsha Maria C A | Ashams Roy,Bittu Boban, Delna Maria Davis,Divina Sibi, Aneesha V B (Guide) [Rajee Reghunath]
5	A study to assess the knowledge and practice	Irin Rose Josey | Jimymol

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	mothers of children with Asthma in Amala Medical College Hospital,Thrissur	Mariam Devassy,Liya Charly, Rinu David (Guide) [Rajee Reghunath]
6	A descriptive study to assess the knoeldge and practice of mothers regarding oral hygiene of onder five children in Amala Institute of Medical Sciences,Thrissur	Liya Tressa Siby | Rajee Reghunath [Neha Binoy,Nidhin Francis,Nimiya Elizabath Sabu,Nishana M A,Surya K (Guide)
7	Arescriptive study to assess the level of happiness and satisfaction among elderly residents of Thollur Grama Panchayat	Riya Jose et.all | Riya Roy,Rose Mria Antony ,Shalvina Merin Sojan,Sheenu S Lukose, Neethu Anto (Guide) [Rajee Reghunath]
8	A descriptive study to assess the knowledge regarding dash diet among selected hypertensive patients visiting IP and OP of Cardiology department in Amala Medical College Hospital,Thrissur with a view to prepare an information leaflet	Sona Paul et.all | Surya Paul, Sweetna Thomas,Syma P S, Vandana Ranjraj Aswathy Gopi (Guide) [Rajee Reghunath]
9	A study to assess the impact of reels on patients level among students at Amala college of Nursing ,Thrissur Project	Adithya V | Akhilamol Thomas,Aleene Peter,Aleena Shaji,Alina Mannanal Gigi,Seena A.F (Guide) [Rajee Reghunath]
10	A study to assess the knowledge and practice regarding the use of metered dose inhaler among mothers of children with Asthma in Amala Medical College Hospital,Thrissur	Eldhose Reji et.all | Elsa Joseph,Gillumo Shiji,Harsha A K,Hiba Fathima K S,Sr.Grace Mariya (Guide)

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EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE AND ATTITUDE REGARDING PREMENSTRUAL SYNDROME AMONG ADOLESCENT GIRLS

Aswathy Gopi[1], Emitha Tomy[2], Gladis Mariya A C[2] , Hanna V J[2], Hiba K M[2], Hridhya Venu P C[2]

Abstract

The present study was aimed to assess the effectiveness of structured teaching programme on knowledge and attitude regarding premenstrual syndrome among adolescent girls in selected college, Thrissur. The objectives of the study were to assess the level of knowledge and attitude regarding premenstrual syndrome among adolescent girls, to evaluate the effectiveness of structured teaching programme in terms of knowledge and attitude score among adolescent girls and to find the association between pre-test level of knowledge and attitude with selected baseline variables. The research approach was quantitative and research design selected for the students was pre-experimental one group pre-test post-test design. Thirty undergraduate nursing students were selected by convenience sampling technique. The pre-test knowledge and attitude towards pre-menstrual syndrome were assessed and structured teaching programme were given to the samples. A post-test was done to assess the knowledge soon after the structured teaching programme. Attitude was assessed a week after the structured teaching programme. Data was analyzed using descriptive and inferential statistics. The pre-test level of knowledge revealed that 13.3% of students have good knowledge, 26.6% of students have average knowledge and 60% of students have poor knowledge. Post-test level of knowledge shows that (83.33%) majority of students have good knowledge, 16.66% of students have average knowledge. With regard to the pre-test level of attitude, 3.33% of students have most favourable attitude, 90 % of students have a favourable attitude, and 6.66% of students have an unfavourable attitude towards premenstrual syndrome. 10% student's show most favourable and 90% students show favourable attitude towards premenstrual syndrome in the post-test. Hence it is concluded that although there was a significant increase in the knowledge scores after the structured teaching programme the difference between the pre-test and post-test mean scores were not statistically significant. However there

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is high significance in terms of attitude scores.

Keywords : premenstrual syndrome, structured teaching programme, knowledge, adolescent girls

Introduction

Adolescence is a unique period in the life of a individual when the person grows from childhood to adulthood mentally, emotionally, socially and physically. It is period of development from the onset of puberty to the age of maturity. The onset of puberty brings about lot of conflicts, worries and confusion in adolescence, the most striking event in the whole process of female puberty is the onset of menstruation and it often can lead to many problems.

Menstruation (also known as a period) is the regular discharge of blood and mucosal tissue from the inner lining of the uterus through the vagina. Symptoms in advance of menstruation that do interfere with normal life are called premenstrual syndrome . Approximately 75 to 85 % women experience pre menstrual symptoms. These include acne, tender breasts, bloating, feeling tired, irritability, and mood changes. Premenstrual Syndrome is one of the most common disorders of reproductive age that can be seen in different intensities in 85-90 % of women.

Pre-menstrual syndrome is a disruptive set of emotional and physical symptoms that regularly occur in the one to two weeks before the start of each menstrual period. Symptoms resolve around the time menstrual bleeding begins. The cause of Pre-menstrual syndrome is unknown, but the underlying mechanism is believed to involve changes in hormone levels during the course of the whole menstrual cycle.Mild pre-menstrual syndrome is common, affecting up to 75 percent of women with regular menstrual cycles .This condition can affect women of any socioeconomic, cultural, or ethnic background .Previous studies in India reported a prevalence of premenstrual syndrome to be 20% in a general population and severe symptoms in 8%.Although it is common to have one or a few pre-menstrual symptoms, clinically significant Pre-menstrual syndrome occurs in only 3 to 8 percent of women.

The Pre-menstrual syndrome symptoms could impact an individual's interpersonal relationships, social interactions, occupational activities and productivity for her entire reproductive age life. Especially for young women, pre-menstrual symptoms can be related to academic performance impairments including poor grades and absenteeism.This disorder in young women is a significant public health problem, as increased incidence of depression and anxiety disorders were found in women suffering with pre-menstrual syndrome, which could economically burden the society indirectly in the form of absenteeism at work, frequent hospitalization and suicidesand the knowledge on pre-

menstrual syndrome is not well characterized among adolescent girls. With this background the present study was conducted to assess the knowledge and attitude of female students towards pre-menstrual syndrome.

Statement of the problem

A descriptive study to assess the effectiveness of structured teaching programme on knowledge and attitude regarding pre-menstrual syndrome among adolescent girls in selected college Thrissur.

Objectives

1. To assess the level of knowledge and attitude regarding pre-menstrual syndrome among adolescent girls.

2. To evaluate the effectiveness of structured teaching programme in terms of knowledge and attitude score among adolescent girls

3. To find the association between pre-test level of knowledge and attitude and selected baseline variables

Hypotheses

H1: There will be significant difference between pre-test and post-test knowledge scores of adolescent girls regarding pre-menstrual syndrome.

H2: There will be significant difference between pre-test and post-test attitude scores of adolescent girls regarding pre-menstrual syndrome.

H3: There will be significant association between baseline variables and pre-test knowledge scores.

H4: There will be significant association between baseline variables and pre-test attitude scores.

Materials and Methods

The quantitative research approach with pre-experimental one group pre-test post-test design was adopted for the study. Thirty undergraduate nursing students were selected by convenience sampling technique. The pre-test knowledge and attitude towards pre-menstrual syndrome were assessed and structured teaching programme were given to the samples. A post-test was done to assess the knowledge soon after the structured teaching programme. Attitude was assessed a week after the structured teaching programme. Questionnaire used for data collection were socio demographic data sheet comprising of 10 questions to assess socio demographic variables such as age ,age of menarche ,educational status , occupation of mother and father ,economical status ,type of family, place of residence ,siblings, previous knowledge on pre-menstrual syndrome and a structured questionnaire to assess the level of knowledge regarding pre-menstrual syndrome consisting of 10 questions and a likert attitude scale consisting of 10 questions .Content validity of the tools were done by the experts .

After obtaining formal permission from the head of the institution and from the institutional ethical committee a written permission letter was submitted to authorities of the college and permission was obtainedand informed consent from

the study participants was obtained after assuring the confidentiality of data. provided a brief explanation regarding the tool and adolescent girls took an average of 15 minutes to answer the items and the structured teaching programme was given for 30 minutes by using a PowerPoint presentation. after one week the post test and attitude test was conducted for the same group of study participants.

The data gathered were analyzed and interpreted according to the objectives by using descriptive and inferential statistics for the distribution of demographic data ,frequency and percentage was used .chi square test was used to assess the effectiveness of structured teaching programme and for finding association between pretest level of knowledge and attitude and selected baseline variables.

Results

The analysis of the study were presented in the following heading as:

Section 1 : Distribution of nursing students according to selected demographic variables.

Table no 1 : Frequency and percentage distribution of nursing students based on demographic characteristics

Socio demographic characteristics	Categories	Frequency(30)	Percentage (%)
Age in years	18 years	11	36.6
	19 years	12	40
	20 years	7	23.3
	21years	0	0
Age of menarche	<10 years	0	0
	10-12 years	16	53.33
	13-15 years	14	46.66
	>16 years	0	0

Occupation of Mother	House wife	17	56.66
	Health care professional	4	13.33
	Manual Laborer	0	0
	Any other	9	30
	House wife	0	0
Occupation of father	Health care professional	7	23.33
	Manual Laborer	8	26.66
	Any other	15	50
Economic status	APL	25	83.33
	BPL	5	16.66
Siblings	Brother	6	20
	Sister	16	53.3
	Both	7	23.3
	No siblings	1	3.33

Place of residence	Urban	6	20
	Rural	16	53.3
	Semi urban	8	26.66
Type of family	Nuclear	30	100
	Joint	0	0
	extended	0	0
Previous knowledge	Yes	9	30
	No	21	70

The table reveals that 40% are 19 years old, 53.33% attained menarche at 16 years of age ,56.66% of students mothers are house wife and 50% students fathers working other sectors,83.33% belongs to APL ,53.3% Of students have sisters 53.3% of students reside in rural area ,100% of students belongs to nuclear family, and 70%of students have no previous knowledge on pre menstrual syndrome

Section 2 : Assessment of level of knowledge and attitude of nursing students on pre menstrual syndrome

Knowledge Level	Pre-test		Post- test	
	Frequency(n)	Percentage (%)	Frequency(n)	Percentage (%)
Good knowledge	4	13.3	25	83.33
Average knowledge	8	26.6	5	16.66
Poor knowledge	18	60	0	0

Table no 2 : Knowledge of adolescent nursing students before and after structured teaching programme

Table 2 reveals that in the pre-test 60%of the students had poor knowledge and in the post test 83.33% students had good knowledge.

Table no.3 : Attitude of adolescent nursing students before and after structured teaching programme

Attitude Level	Pre-test		Post- test	
	Frequency(n)	Percentage (%)	Frequency(n)	Percentage (%)
Most favourable	1	3.33	3	10
Favorable	29	96.66	27	90
Unfavourable	0	0	0	0

Table 3 reveals that in the pre test 3.33% of students had most favourable attitude and in post test 10% of students had most favourable attitude.

Section 3 : Evaluation of the effect of structured teaching programme on knowledge and attitude regarding pre-menstrual syndrome.

Table no.4 : Mean, standard deviation and chi square value of knowledge score of adolescent girls.

	Mean	Standard Deviation	Chi square value	P value
Pre test	5.2	1.70	2.82	0.24
Post test	8.5	1.04		

Table 4 reveals that the calculated chi square value is 2.82 and p value is 0.24(>0.05). so the difference betweenmean pre test and post test knowledge score is statistically not significant.

Table no.5: Mean, standard deviation, and chi square value of attitude score of adolescent girls.

Table 5 reveals that the calculated chi square value is 9.31 and p value is 0.002(<0.05). so the difference between mean pre test and post test attitude score is highly significant.

	Mean	Standard Deviation	Chi square value	P value
Pre test	30.83	3.74	9.31	0.002
Post test	33.03	3.13		

Discussions

Section A: Distribution of nursing students according to selected demographic variables.

· Age: 40% students are 19 years, 36.6% are 18 years, and 23.3% are 20 years.

· Age of menarche: 53.33% attained their menarche between age of 10-12 years, 46.66% attained their menarche between age 13-15 years.

· Occupation of mother: 56.66% of student's mothers are housewives, 13.33% student's mothers are health care professionals and while 30% student's mothers work in other sectors.

· Occupation of father: students 26.66% of student's fathers are manual laborer's, 23.33% of student's father's work as health care professionals and 50% of student's father's work in other sectors.

· Economical status: majority (83.33%) belongs to APL and 16.66% belongs to BPL category.

· Siblings: 53.3% have sisters, 23.3% students have both brother and sister, 20% students have brothers and 3.33 % have no siblings.

· Place of residence: 53.3% students reside in rural area, 26.66% students reside in semi urban area and 20% students stay in urban area.

· Type of family: All students (100%) belong to nuclear family.

· Previous knowledge on pre-menstrual syndrome: 70 % of students had no previous knowledge on pre-menstrual syndrome while 30 % students had previous knowledge on pre-menstrual syndrome.

Section B: Assessment of level of knowledge and attitude of nursing students on pre-menstrual syndrome.

· Pre-test level of knowledge: 13.3% of students have good knowledge, 26.6% of students have average knowledge and 60 % of students have poor knowledge.

· Post-test level of knowledge :83.33% of students have good knowledge, 16.66% of students have average knowledge on pre-menstrual syndrome

· Pre-test level of attitude: 90 % of students have favourable attitude, 6.66% of students have unfavourable attitude and 3.33% of students have most favourable attitude towards pre-menstrual syndrome.

· Post-test level of attitude: 90 % students show favourable attitude and 10 % student's shows most favourable attitude towards pre-menstrual syndrome.

Section C : Analysis of association between selected baseline variables and knowledge.

· Study reveals that there is no statistically significant association between the age in years, age of menarche, educational status, occupation of mother and father, economical status, type of family, place of residence, siblings, and previous knowledge on pre-menstrual syndrome.

Section D: Analysis of association between selected baseline variables and attitude.

· Study reveals that there is no statistically significant association between the age in years, age of menarche, educational status, occupation of mother and father, economical status, type of family, place of residence, siblings and previous knowledge on pre-menstrual syndrome.

Section E : Analysis of effectiveness of structured teaching programme in term of knowledge and attitude score.

· Among 30 nursing students 46.6% of students attained poor knowledge in pre-test and later 28.5% of students attained average knowledge and 71.4 % of students attained good knowledge in post-test, 40% of students attained average knowledge in pre-test and later 91.6 % students attained good knowledge in post-test :and 13.3% of students had good knowledge .Among 30 nursing students there were no unfavourable attitude and 96.66% of students had favourable attitude in pre-test and later 37.9% of students attained most favourable attitude, 3.33% of students had most favourable attitude.

Conclusion

The study was conducted to assess the effectiveness of structured teaching programme on knowledge and attitude regarding pre-menstrual syndrome among

adolescent girls in Amala College of Nursing, Thrissur. The following conclusion was derived based on the finding of study.

· Pre-test level of knowledge: 13.3% of students have good knowledge, 26.6% of students have average knowledge and 60 % of students have poor knowledge.

· Post-test level of knowledge :83.33% of students have good knowledge, 16.66% of students have average knowledge on pre-menstrual syndrome

· Pre-test level of attitude: 3.33% of students have most favourable attitude, 90 % of students have favourable attitude and 6.66% of students have unfavourable attitude towards pre-menstrual syndrome.

· Post-test level of attitude: 10 % student's shows most favourable attitude and 90 % students show favourable attitude towards pre-menstrual syndrome. Hence it is concluded that the structured teaching programme has no significant effectiveness in terms of knowledge score but there is high significance in terms of attitude scores.

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A STUDY TO ASSESS IMPACT OF SMARTPHONE USAGE ON SELECTED PARAMETERS AMONG B.Sc NURSING STUDENTS

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Abstract

The present study aimed to assess the impact of smart phone usage on selected parameters among B.Sc. Nursing students in Amala College of Nursing. The objective of this study was to assess the impact of smart phone usage on selected parameters among B.Sc. Nursing students in Amala College of Nursing and to find out the association between impact of smart phone and demographic variables among B.Sc. Nursing students in Amala College of Nursing. The study was based on quantitative research approach. Convenient sampling technique was used. Tools used for data collection were socio-demographic data sheet and Modified Smart Phone Impact Scale. The data were collected from 105 samples. The findings of the study show that Majority 75.23% of the students had normal smart phone usage. About 15.23% of the students had mild impact of smart phone usage. About 9.52% of students showed moderate impact on smart phone usage.

Keywords: Smartphone Impact Scale, Impact of smart phone.

Introduction

"Home is where the heart is but today, the phone is where the heart is"[1]

Rachitha Cabral

Currently, smart phone is a vital part of the human life. Humans use technology in all facets of their lives, including job, education, social interactions, education, research, communication and more. Smart phone has a great impact on people of all age groups. It enables people to text, email, and contact people from all over the world. Smart phones give users the chance to conduct research and look up information, saving them time and money.

Smart phones can be much beneficial for students. Students can make use of them to swiftly look up material, take class notes, and be updated. With a smart phone, students have access to a wide range of platforms and resources. Life management has become more pleasurable and simple as a result. With the numerous search engines at their disposal, one may quickly find out anything they want to know. Depending on how often a person checks their phone, the power the device has over their life will vary.

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According to the report published by economic times the average hours spent on mobile per day for a user increased by around 4.5% from 3.7-4.7 in the year 2021. The time spent on mobile in the year 2020 was 4.5 hours per day. India ranked 5th in global list with regard to time spent in mobile phones after Brazil, Indonesia, South Korea and Mexico.[2]

A quantitative study conducted in the year 2021 by Yuen Fook Chan, Suthakar Narasuman et.al on smart phone usage among university students. A quantitative survey method was selected for the study. The study showed that 20% students spent more than 40 hours in smart phone in each week. Fourteen point five percent spent 26-30 hours and 10.9% spent 16-20 hours, 10.9% spent 11-15 hours on smart phone. Majority 43.6 % of the students spent their time for learning purposes, 29.1% students spent half of their time to search academic information.[3]

Problem Statement

"A descriptive study to assess the impact of smart phone usage on selected parameters among B.Sc. Nursing students in Amala College of Nursing."

Objectives

1. To identify the impact of smart phone usage.

2. To find out the association between the impact of smart phone usage and selected parameters.

Hypothesis

H1: There will be significant association between impact of smart phone usage and selected parameters.

H0: There will not be significant association between impact of smart phone usage and selected parameters.

Materials And Methods

This study was conducted in Amala College of Nursing, Thrissur. Research design used in this study is descriptive research design to assess the impact of smart phone usage on selected parameters. The study comprises of 105 B.Sc. Nursing students who were selected using convenient sampling technique.

Data Collection Instruments

Tool 1: Social demographic data sheet

Tool 1, socio demographic data sheet consist of consists of age, gender, religion, year of study, type of accommodation, place of residence, type of family, monthly family income, relationship status, number of education platform used, number of social media used, hours spent on social media, hours of sleep, percentage score of previous university examination.

Tool 2: Modified smart phone impact scale [SIS]

The tool consists of 23 impact statement which was developed to assess the impact of smart phone usage. A five point Likert scale (strongly disagree,

disagree, neutral, agree, strongly agree) which included both positive and negative statement regarding impact of smart phone usage.

Pilot Study

Pilot study is referred to a small scale preliminary try out of the method to be used in an actually large study which acquaints the researcher with problems that can be corrected in a proportion for the large research study. After getting approval from the institutional ethics committee, pilot study was conducted on 14-2-23. The purpose of the study was explained, and informed consents were taken from students. Tool 1 and Tool 2 was administered and data was collected. Statistical analysis was done on collected data. During the pilot study investigators did not face any difficulties.

Method of Data Collection

Data collection started on 15/02/23 and ended on 16/02/23.sampole size was 105 B.Sc. Nursing students of Amala College of Nursing. Formal permission was obtained from college authority. The samples were selected according to inclusion and exclusion criteria through convenient sampling techniques. Informed consent was taken from the participants. Participants were informed that confidentiality of the study will be assured. The participants were asked to fill questionnaire according to the instructions given. Samples willing were taken for data collection. Data collection duration was 2 days.

Data Analysis

The data were analyzed using descriptive statistics and inferential statistics based on the hypothesis and objective of the study.

- Section 1: Frequency and Percentage Distribution of Sample According To Demographic Variables.
- Section 2: Frequency and Percentage of Impact of Smartphone Usage On Selected Parameters Among B.Sc. Nursing Students.
- Section 3: Association between Impact of Smartphone Usage On Selected Parameters and Socio demographic Variables.

Section 1 : Frequency and Percentage Distribution of Sample According To Demographic Variables.

- Age: Among 105 samples 3.80 % belongs to age group d"19, 28.57% belongs to age group of 20, 26.66% belongs to age group of 21, 40.97% belongs to age group e"22.
- Gender: Among 105 samples 6.66% are males, 93.34% are females.
- Religion: Among 105 samples 74.30% are Christian, 20 % are Hindu 3.80% Muslim and 1.90% others.
- Year of study: Among 105 samples 47.61% belongs to IV year, 47.61% belongs to II year and 4.78% belongs to I year.

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· Accommodation: Among 105 samples 84.77% were hostlers and remaining were day scholars.

· Place of residence: Among 105 samples 50.49% are from rural area, 30.47 % from semi urban area, and 19.04% from urban area.

· Type of family: Among 105 samples 83.82% were from nuclear family, 9.52% were from joint family, and 6.66% from extended family.

· Monthly family income: Majority of subjects i.e.40% have a family income e"15000, 26.66% have family income between 5000-10000, 25.73% have family income between 10000-15000 and 7.61% have family income <5000.

· Relationship status: Out of 105 subjects 92.39% were single and 7.61% were committed.

· Number of education platform used: Among 105 samples 31.43% use 3 educational platforms, 31.43% use 2 educational platform 30.48% use more than 4 educational platforms and 6.66% use only one educational platform.

· Number of social media used: Among 105 samples 50.49% use more than 4 social media platforms, 27.61% use 3 social medias, 15.24% use 2 social media platforms and 6.66% use only 1 social media platform.

· Hours spent on social media: Majority of subjects 35.25% spent 3 hours on social media, 31.43% spent more than 4 hours on social media, 26.66% spent 2 hours on social media and 6.66% spent only 1 hour on social media.

· Hours of sleep: Among 105 samples 53.34% sleep 6 hours, 34.29% 7 hours, 6.66% e" 8 hours and 5.71 sleeps d" 5 hours.

· Percentage score of previous university examination: Among 105 samples 53.34% have percentage score of 60-70%.

Section 2: Frequency And Percentage Of Impact Of Smartphone Usage On Selected Parameters Among B.Sc. Nursing Students.

· Regarding the impact of usage of smart phone on selected parameters 75.23% had normal smart phone usage.

· About 15.24% had mild impact on smart phone usage.

· About 9.53% had moderate impact on usage of smart phone.

· None of the subjects have severe impact of smart phone usage.

Section 3: Association Between Impact Of Smartphone Usage On Selected Parameters And Socio demographic Variables.

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Variables	P value	Chi square value
Age and smart phone usage	0.84	2.69
Gender and smart phone usage	0.488	1.431
Religion and smart phone usage	0.820	2.907
Year of study and smart phone usage	0.727	2.044
Type of accommodation and smart phone usage	0.225	2.978
Place of residence and smart phone usage	0.589	2.811
Type of family and smart phone usage	0.0001	52.215
Monthly income and smart phone usage	0.178	8.908
Relationship status and smart phone usage	0.057	5.722
Number of education platforms used and smart phone usage	0.951	1.615
Number of social media used and smart phone usage	0.896	2.235
Hours spent on social media and smart phone usage	0.141	9.625
Hours of sleep and smart phone usage	0.770	3.296
Percentage score of previous university exam and smart phone usage	0.310	4.784

The study result shows that there is no statistically significant association between impact of smart phone usage and selected parameters and socio demographic variables.

Discussion

H0: There will not be significant association between impact of smart phone usage and selected parameters.

The study result shows that there is no statistically significant association between impact of smart phone usage and age, gender, religion, year of study, type of accommodation, place of residence, type of family, monthly income, relationship status, number of educational platform used, social media used, hours spent on social media used, hours of sleep, percentage score of previous university exam.

Nursing Implication

The finding of the study has implications to nursing practice, nursing education, nursing administration and nursing research.

Nursing Practice

Most of the students have normal usage of smart phone which helps in performing better in their curricular and co curricular activities. Smart phone can be effectively used in ongoing nursing practice as it enhance knowledge and helps in acquiring new skills in holistic patient care and nursing practices.

Nursing Education

Nursing education as a field of professional study demands lots of skills and expertise which need to be polished and acquired. During this process effective use of smart phone is one of the main concern of the student. Smart phone act as tool for academic learning and helps in gaining great skills in the learning process. Findings of the study can be utilized to understand the impact of smart phone on various domains like research, effective communication, knowledge, academics and its effectiveness in nursing education.

Nursing Administration

Nursing is not a mere technical job it requires ongoing education and updating of knowledge and skills every day. A nurse administrator needs to be the one who effectively utilize the modern technology like smart phones to provide instructions regarding systematic way of clinical procedure and enhancing the skills and knowledge of the nursing staff and students, The nursing administration can utilize the finding of the study to use advanced technology effectively.

Nursing Research

The study opens a new venue for future studies regarding impact of smart phone on the students and their overall well being. More researches can work on this in the future studies enhance the future investigations to develop their tool and methodologies so that the effectiveness can be monitored accurately via standardized tool.

Recommendations

On the basis of the study following recommendations are stated:

- Nursing researcher can do studies related to the impact of smart phone usage at various levels of nursing education in an elaborate manner in a larger population so that generalization can be done.
- Studies can be conducted in with a control group or with pretest data so that accurate impact can be measured.
- Studies can be done to determine the impact of smart phones and thereafter providing interventions rather than mere assessment of impact.
- The study can be conducted including a greater number of variables and different setting of education.
- A comparative study can be done to determine the impact of smart phone usage and socio-demographic variables.

Conclusion

The study was conducted to assess the association of smart phone usage on selected parameters among B.Sc. Nursing students of Amala College of Nursing, Thrissur. The following conclusions were derived based on the findings of the study.

- Majority 75.24% of the students had normal smart phone usage.
- About 15.24% of the students had mild impact of smart phone usage.
- About 9.53% of students showed moderate impact on smart phone usage.
- None of the subjects had severe impact on smart phone usage.

Hence it is concluded that the smart phone usage has no statistical significance on impact of selected parameters among B.Sc. Nursing students of Amala College of Nursing, Thrissur.

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Lazarus syndrome-a miraculous revival

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BSTRACT

ie Lazarus syndrome, named after the biblical account of Lazarus, being raised from the dead, refers to the common occurrence of spontaneous recovery of circulation following failed resuscitation attempts. This review icle delves into the historical foundations, underlying mechanisms, prominent instances, disputes, ethical concerns, edical interventions, and psychological consequences of Lazarus syndrome. Despite being recorded in medical erature, the mechanisms underlying this condition are not well known. Possible explanations include medication-ated delays, hyperkalemia, reperfusion damage, myocardial shock, and brainstem reflexes. While Lazarus ndrome calls into question our notion of life and death, it also raises ethical concerns about death verification, ormed consent, quality of life, resource allocation, and cultural values therapies include diagnosing underlying sons, enhanced cardiac life support, extracorporeal membrane oxygenation, therapeutic hypothermia, and ongoing nitoring. The psychological burden on healthcare staff and families is significant, necessitating assistance and ing measures. Understanding and managing the intricacies of Lazarus syndrome is critical to the well-being of ryone concerned.

words: Autoresuscitation, Lazarus syndrome, Historical roots, ROSC, CPR

ODUCTION

s syndrome, a term often used colloquially to e the phenomenon which is a strange and hing occurrence entails the unexpected return of teous circulation (ROSC) in a patient, typically seemingly futile attempt at resuscitation following arrest. It stands as a medical enigma that has d both the medical community and the general like.

nition, Lazarus phenomenon is described as a fter cessation of cardiopulmonary resuscitation

"Lazarus syndrome" draws its name from the ale of Lazarus, whom Jesus miraculously raised dead. This captivating medical phenomenon echoes resurrection of Lazarus, challenging boundaries between life and death within modern medicine.[2]

In this review article, delves into historical roots of Lazarus syndrome, and potential underlying mechanisms, dissecting and examining the compelling case studies, controversies and ethical considerations, medical interventions, and potential treatment and psychological implications for healthcare providers and families.

By exploring the mysteries and complexities surrounding this phenomenon, these reviews shed light on the remarkable resilience of the human body and the ethical dilemmas it poses within realm of critical care medicine.

HISTORICAL ROOTS OF LAZARUS SYNDROME

The term "Lazarus syndrome" finds its roots in the bible, the story of Lazarus is found in the New Testament,

specifically in the Gospel of John, chapter 11. Lazarus was a man from Bethany, and he was the brother of Mary and Martha. He fell ill and died. When Jesus arrived at his tomb, he wept and then miraculously raised Lazarus from the dead, demonstrating his power over death.

It was first reported in medical literature in 1982. A 66-year-old woman in a hospital in the United States experienced cardiac arrest during surgery. Despite the medical team's strenuous efforts, she was declared dead after 30 minutes of unsuccessful CPR. To the astonishment of the attending nurses, her pulse suddenly returned nearly ten minutes later, and she regained consciousness.[2]

The term Lazarus was used by Bray in 1993. Although the Lazarus syndrome was only formally documented in the medical literature in recent decades, there have been instances throughout history of individuals seemingly coming back to life after being declared dead. These instances often carried mystical or supernatural connotations and were deeply ingrained in cultural and religious beliefs.[1]

The historical perspective of Lazarus syndrome reveals a progression from supernatural explanations to a more scientifically grounded understanding. Today, the phenomenon is recognized as a unique but documented medical phenomenon.[3] There is no doubt that the Lazarus phenomenon is a reality but so far, the scientific explanations have been inadequate. And it serves as a reminder of the complexities of life and death.

UNDERLYING MECHANISMS

The exact pathophysiology of autoresuscitation is not clear, but several theories have been proposed to explain this phenomenon:

Delayed effects of medications

One theory suggests that medications administered during resuscitation efforts may have delayed effects on the cardiovascular and respiratory systems. For example, certain drugs like epinephrine and other vasoactive medications may remain in the bloodstream and exert their effects even after CPR has been terminated. These medications can potentially stimulate the heart and restore spontaneous circulation after a delay.[4,5]

Hyperkalemia

There are few reports of delayed ROSC in the presence of hyperkalemia. It is a well-known fact that intracellular hyperkalemia could persist longer, rendering the myocardium retractile for long periods. There is a report on a 68-year-old lady with cardiac arrest due to hyperkalemia who did not respond to CPR and conventional treatment for up to 100 minutes, but later responded to dialysis and made a complete recovery. So even though prolonged cardiac arrest refractory to conventional treatment could respond to dialysis, it is unlikely that hyperkalemia on its own could explain delayed ROSC after cessation of CPR.[5]

Reperfusion injury

During CPR, especially when chest compressions are performed, there can be significant ischemia to vital organs, including the heart and brain. When CPR is stopped, and blood flow is restored, this sudden reperfusion can lead to an inflammatory response and injury to the tissues. The reperfusion injury may trigger a response that leads to autoresuscitation.[6]

Myocardial stunning

Myocardial stunning refers to a reversible dysfunction of the heart muscle following an episode of ischemia. During CPR, the heart may experience periods of ischemia and reperfusion, which can result in myocardial stunning. In some cases, the heart may recover from this stunning state after resuscitation efforts have ceased, leading to autoresuscitation.[7]

Brainstem reflexes

Some researchers have suggested that autoresuscitation may be related to brainstem reflexes that spontaneously initiate breathing and circulation. The brainstem is responsible for controlling many automatic functions of the body, including breathing and heart rate. Certain conditions or triggers may cause the brainstem to initiate these reflexes even after CPR has been discontinued.[8]

It's important to note that autoresuscitation is an extremely limited occurrence, and the exact mechanisms behind it remain poorly understood.

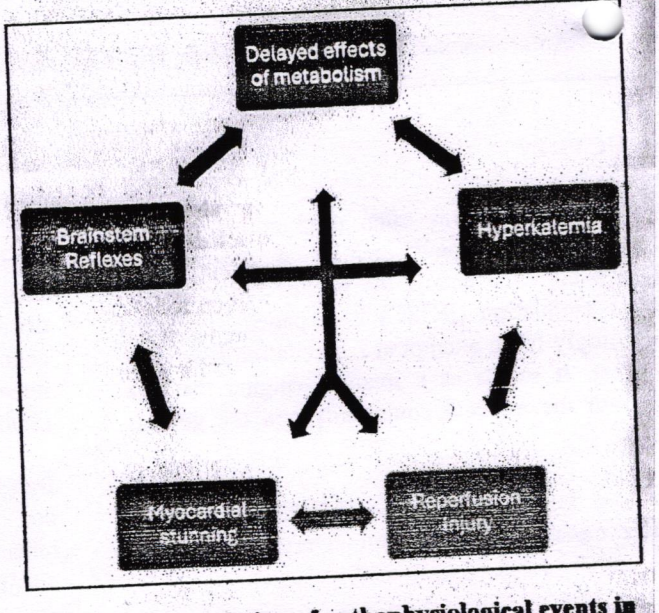

Figure 1: Interrelation of pathophysiological events in Lazarus syndrome.

NOTABLE CASES

Lazarus syndrome remains exceptionally uncommon, a few notable cases have been documented, from the period of 2015 to 2022 showcasing the mysterious and often bewildering nature of this syndrome.

Seventeen cases of the Lazarus phenomenon have been documented in table which highlights the youngest person with 11 months and the oldest patient with the 97 years old.[9]

Spontaneous return of circulation in children is extremely rare and youngest case was 9 months old infant. Resuscitation activities were initiated by her father. During transport to hospital, resuscitation was continued. After 10 min, focused assessment with sonography for trauma ultrasound was performed to assess potential myocardial contractions that were not observed. Activities stopped, but after 30s, presence of a pulse was noticed.[10] So far 17 reported cases of Lazarus phenomenon in last 10 years are summarized in Table. Cases described include both in-hospital and out-of-hospital arrests.

Table 1: Notable cases of Lazarus syndrome from the period of 2015 to 2022.

Case No:	Year	Age (in years)	Gender	Duration of CPR	Time of ROSC (Minutes)	Survival time	Reference
1	2015	67	M	47	5	1 day	11
2	2015	11 months	F	35	15	5 months	12
3	2016	57	F	NI*	3	3 minutes	4
4	2016	44	M	80	5	3 days	13
5	2017	69	M	40	180	10 days	14
6	2017	97	F	16	3	2 minutes	14
7	2017	91	F	16	3	15 minutes	15
8	2018	97	M	NI	Unknown	20 hours	16
9	2018	18 months	M	Unknown	6	Unknown	17
10	2019	86	F	DNR*	4	Unknown	18
11	2020	33	M	30	20	7 days	19
12	2021	79	F	10	20	14 days	20
13	2021	66	F	32	5	Unknown	21
14	2021	2	M	NI	14	3 h, 30 minutes	21
15	2021	18 months	Unknown	20	6	Unknown	21
16	2022	25	F	73	15	Unknown	22
17	2022	44	F	Unknown	6	Unknown	23

*DNR-Do not resuscitate, *NI-Not initiated.

CONTROVERSIES AND ETHICAL CONSIDERATIONS

Lazarus syndrome can give rise to several controversies and ethical considerations;

Verification of death

One of the primary ethical concerns is ensuring that the patient is indeed dead before resuscitation attempts are terminated. There may be disputes about when and how death is determined, especially when patients exhibit unusual signs or when there's pressure to declare death quickly.[12]

Informed consent

Resuscitation procedures often come with risks and potential harm. The ethical dilemma arises when patients or their families have not given explicit consent for the resuscitation or have requested a do-not-resuscitate (DNR) order. Decisions regarding resuscitation in the absence of clear directives can be contentious.[24]

Quality of life

When if a patient is successfully resuscitated, questions about their subsequent quality of life may arise. Ethical considerations include weighing the potential benefits of a revival against the likelihood of neurological deficits or severe disabilities.[24]

Resource allocation

The cost of extended life support and post-resuscitation care can be substantial. Allocating resources to potentially futile cases of Lazarus syndrome may be debated in healthcare systems with limited resources.[25]

Emotional and psychological impact

The emotional toll on healthcare providers and the psychological impact on witnesses, especially when they believe a person has died, can be significant. It raises

questions about the emotional well-being of those involved in resuscitation efforts.[26]

Autonomy and end-of-life decisions

Lazarus syndrome cases depreciate the importance of respecting patients' autonomy in end-of-life decisions and advance care planning. Discussions about DNR orders and end-of-life wishes are crucial in ethical medical practice.[27]

Cultural and religious belief

Cultural and religious beliefs can influence how death is perceived and what interventions are deemed acceptable. Respecting cultural and religious diversity is an ethical consideration.[28]

Legal implications

In some cases, legal issues may arise, such as allegations of medical malpractice or disputes over the decisions made during resuscitation efforts.[29]

Public awareness and education

Ethical considerations include public awareness and education about Lazarus syndrome, so people are better prepared for the potential outcomes of resuscitation efforts.[12]

Healthcare professionals need to follow established ethical guidelines, engage in open communication with patients and their families, and respect the principles of beneficence, autonomy, non-maleficence, and justice when dealing with Lazarus syndrome cases.

MEDICAL INTERVENTIONS AND POTENTIAL MANAGEMENT

Lazarus syndrome is an infrequent and perplexing medical phenomenon. This phenomenon challenges our understanding of death and underscores the complexities of medical interventions in critical situations. However, there are no specific treatments designed exclusively for Lazarus syndrome because it is not a medical condition in itself.[30]

Instead, the focus is on addressing the underlying causes and providing comprehensive care for the patient. When Lazarus syndrome is suspected, immediate medical attention is crucial.

Identification of underlying causes

A thorough evaluation of the patient's medical history and current condition is crucial. Identifying and addressing any underlying medical conditions, such as electrolyte imbalances, drug toxicity, or reversible causes of cardiac arrest, is a priority.[31]

Advanced cardiac life support (ACLS)

ACLS guidelines are followed to manage cardiac arrest situations. This includes interventions such as administering medications, advanced airway management, and defibrillation as needed.[32]

Extracorporeal membrane oxygenation (ECMO)

In severe cases, ECMO can be considered. ECMO is a life support system that temporarily takes over the function of the heart and lungs, providing the patient with oxygenated blood. It allows time for the underlying issue to be addressed.[5,31]

Therapeutic hypothermia

In some cases, inducing mild hypothermia may be considered to reduce the risk of brain damage following cardiac arrest. This therapy aims to protect the brain from ischemic injury.[31]

Monitoring and support

Monitor vital signs, administer intravenous medications, and provide supportive care to maintain hemodynamic stability.[5,31]

Continuous monitoring

Continue monitoring the patient's cardiac rhythm, blood pressure, and other vital signs to ensure the ROSC is sustained.[5]

Neurological evaluation

Assess neurological status and provide appropriate interventions to prevent or manage potential brain injuries.[33]

Psychological support

Patients who experience Lazarus syndrome often undergo significant physical and psychological trauma. Providing emotional support and psychological counseling is essential for their overall well-being.[33]

PSYCHOLOGICAL IMPLICATIONS FOR HEALTH CARE WORKERS AND FAMILIES

Lazarus syndrome, while odd presents profound psychological implications for both healthcare workers and families. The rollercoaster of emotions, from despair to elation, can take a toll on mental well-being.

The experience of witnessing a patient with Lazarus syndrome can be a whirlwind of emotions for healthcare workers. Initially, they may feel a sense of failure and guilt, questioning whether they did enough during CPR. The abrupt reversal of a seemingly futile situation can

lead to shock and disbelief. This unexpected turn of events challenges their medical knowledge and coping mechanisms, potentially leading to feelings of inadequacy or imposter syndrome.[34]

Furthermore, healthcare workers may grapple with ethical dilemmas related to decisions about further treatment and the implications for the patient's quality of life. This can cause moral distress and anxiety, as they must balance their duty to preserve life with the patient's potential suffering. The psychological impact of such decisions can be overwhelming, affecting their overall well-being and job satisfaction.[35]

Support and coping strategies to mitigate the psychological impact of Lazarus syndrome on healthcare workers, hospitals should provide robust support systems, including debriefing sessions, counseling services, and peer support networks.[35]

For families, the Lazarus syndrome experience is equally complex. Initially, they endure the grief and shock of losing a loved one, only to be thrust into a state of confusion and disbelief when the patient miraculously revives. These emotions can be traumatic, leaving families with a profound sense of uncertainty and anxiety about their loved one's future.

The psychological implications for families extend to questions about the patient's quality of life post-resuscitation. They may grapple with feelings of hope, relief, and joy but also fear and uncertainty about potential neurological deficits or long-term health complications. This emotional turmoil can strain family relationships and lead to post-traumatic stress disorder (PTSD) or other mental health challenges.[36]

For families, open and honest communication with healthcare providers is crucial to address their emotional needs and provide realistic expectations about the patient's prognosis.

Lazarus syndrome is a medical anomaly and to address these challenges, healthcare institutions must prioritize the emotional support of their staff, and healthcare providers should maintain transparent and empathetic communication with families. Understanding and managing the psychological impact of Lazarus syndrome is essential to ensure the well-being of all involved in this extraordinary medical occurrence. Healthcare providers must be prepared to manage the emotional turbulence that accompanies these cases, and families require support as well as guidance to navigate the complex emotions that arise.[36]

DISCUSSION

The Lazarus Syndrome is a bewildering medical phenomenon, defying conventional concepts of death and resuscitation. Despite various suggestions, the precise mechanisms underlying this occurrence remain unknown. The reported cases of Lazarus syndrome demonstrate the unpredictable and strange nature of this phenomenon, which affects people of all ages and medical conditions. The ethical considerations underlying Lazarus syndrome touch on core values of medical practice, such as patient autonomy, end-of-life decisions, and cultural sensitivity. Medical treatments emphasize comprehensive care and support, with a multidisciplinary approach aimed at improving patient outcomes.

However, the psychological consequences for healthcare personnel and families cannot be exaggerated, underlining the importance of strong support systems and open communication.

CONCLUSION

The Lazarus syndrome remains a tantalizing medical riddle that continues to fascinate and perplex both the medical community and the general public. Despite advances in medical technology, this event calls into question our understanding of the distinction between life and death. Ethical quandaries and psychological ramifications highlight the importance of holistic methods of care that prioritize empathy, communication, and support. Moving forward, more research is needed to understand the complexity of Lazarus syndrome and improve our capacity to handle this exceptional situation with compassion and skill.

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