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Editorial

Research in clinical nursing

Most of the research in nursing in India is conducted by students during their undergraduate or at post graduate studies, just to fill the curricular requirements. The doctoral scholars too try to find easy way to do the research in areas where it is convenient for them to approach the study population and also the topics are exploratory in nature and rarely interventional studies are taken up by them. Very few studies whether exploratory or interventional are done in the clinical area and again there is hardly any involvement of nursing personnel from the clinical area in conduction of these studies. And we all talk loudly about Evidence Based Practice(EBP) in most of our conferences and webinars when it comes to topics on nursing research, with a wish that nurse's practices should be based on research. Are we not hypocrites?

Therefore, if we want to remove this stigma of being hypocrite, all of us need to seriously address this issue of working in partnership with nurses from clinical area and involving them in clinical research.

Now-a -days more and more nurses with post graduation are opting to work in clinical area. Specialization in nursing such as “Critical Care Nurse Specialist P G course” of two years duration by INC in India has picked up momentum. So, time is ripe to rope-in clinical nurses to do research in their respective speciality area of nursing.

To do so, they need to develop following competencies for conducting clinical research:

- Understand the historical background, Trends in clinical research, need and strategies regarding clinical research.
- Understand, apply and promote principles and practice of obtaining and documenting valid data.
- Work within the requirements of research ethics, research governance and legislation.
- Apply professional knowledge and skills to facilitate efficient, safe and patient focused clinical research
- Create an active network offering mentorship and supervision of novice co-workers.
- Develop patient communication, advocacy and education skills.
- Identify and showcase best practices

The academicians in nursing must work towards bridging the gap between them and the clinical nurses by motivating and involving them in research. Research itself will become 'the bridge'. Such collaborative research projects would lead to:

- better health care
- cost effectiveness of care
- Improved clinical effectiveness
- Change of behaviour among nurses - replaces ritualistic practices
- Give clinical research a 'human face'
- Provide evidence for practice
- Improve health care systems

And above all “Help develop quality care for NOW and the FUTURE !

Dr. Usha Mullick Ukande

Guest Editorial

THE SHOW MUST GO ON: IMPACT OF COVID -19 ON NURSING EDUCATION

*** Rashmi Phillips**

As the world becomes increasingly interconnected, so do the risks we face. The COVID-19 pandemic has not stopped at national borders. It has affected people regardless of nationality, level of education, income or gender. It has affected all areas of life, Nursing Education is no exception.

When I was asked to write guest editorial for IJNS, I thought to pen down experience and challenges our department faced during COVID-19 pandemic and where we are heading to in 2022.

Covid-19 pandemic has dramatically changed how education is delivered worldwide. Due to this catastrophe the education system had gone under tremendous pressure to use innovative and creative ways to transform education while the challenge was increasing critical thinking and reasoning skills among the learners.

During COVID-19 pandemic, as a Nurse Educator, my priority and plans were to share knowledge on COVID-19 disease with our frontline workers and review their skills on use of PPE's, Hand Hygiene, Visual Screening, and Naso-pharyngeal swabbing for PCR. As a team, we came up with an outstanding training plan and started delivering it by travelling to our hospitals at different parts of UAE.

We had just started putting our plans into action as per the guidelines from WHO and DOH (Department of Health, Abu Dhabi), the menace of the pandemic reached its new height and we were asked to stop our travelling and trainings face to face in institutions, and we had to work from home or at the most from our main institute.

There were several questions in my mind, how to reach our learners who are working at the bedside and dealing with suspected and confirmed cases. It was critical and challenging but it was high time to adapt to the new norms as it was the need of the hour.

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Online platforms emerged as the most appropriate way for disseminating knowledge. At our institution, a combination of 'Zoom' and 'Microsoft Teams' were used to facilitate our trainings on COVID-19 disease.

'Microsoft Teams' was mainly used due to its easy interface, accessible outlets, collaborative platform, and its integrated, secure cloud systems. It has become a 'one-stop-shop' for all our educational needs where in a single application; one can share articles that are stored in our pen- drive, work collaboratively on the same document, and conduct an engaging virtual meeting.

With any new virtual initiative, technical issues are expected but can be managed as users become more familiar. That said, the primary challenge of this novel platform lies in the faculty's willingness to embrace this technology.

We piloted Microsoft Teams platform among our team, which was followed by an orientation session for Education Coordinators at hospitals level. The orientation was easily coordinated by sending an e-mail link. Once they joined the meeting, we were able to share our screen and walk them through various features of the application. These features included secure messaging to individuals or teams, response to live polls and educational prompts and streaming of live meetings with screen share and recording capabilities.

Once orientation completed, we shared our Education Calendar with coordinators on the upcoming trainings on COVID-19 for prior registrations. The sessions were then recorded and stored on our work cloud for other colleagues and participants to review at their own leisure.

On the learners part, it was equally challenging. Initially learners struggled to join sessions and found sessions exhausting and monotonous. To address these concerns, we made our virtual trainings engaging by using games, polling, quizzes, videos, and break rooms.

We learned several lessons on our road to successful implementation of a virtual educational environment. We had someone designated to assist us with troubleshooting technical problems because often this disrupts the flow of the sessions. (e.g., someone who cannot see the PowerPoint slides, or someone has trouble in joining session can reach out directly to the designated assistant for help).

This continued for months, then slowly we resumed our classroom trainings such as Basic Life Support (BLS) and Advanced Cardiac Life Support (ACLS) courses with new policies. These new policies include capacity control, social distancing, using PPE's during class and hand sanitization

every time students touch manikins and equipment. Every student had to undergo thermal screening, fill a declaration form and provide negative PCR report. AHA has introduced blended learning by combining face-to-face with online training, which is helpful in achieving life support competencies for health care professionals.

For us there is no turning back. Education Calendar 2022, is packed with trainings which are majority virtual, blended or scenario-based simulations.

Even in the postCOVID-19 era, we believe Medical and Nursing Education programs will benefit tremendously from incorporating a similar virtual learning platform. A virtual learning platform provides a sustainable, high-quality educational infrastructure that fosters participation and collaboration. This may be especially valuable for trainees on duty or on leave.

In conclusion, I would like to say, COVID-19 is an ongoing crisis; it is a real-time lesson in equity, leadership, social justice, ethics, and patient care. This pandemic will forever shift the educational landscape; it already has. But at the same time, we must not ignore that it is also important to acknowledge that this does not replace the need for procedural and experiential teaching and learning, which is the foundation of Nursing Education. Existing Virtual platforms will complement traditional educational methods used in Nursing for years, because the show must go on.

IDENTIFYING THE BARRIERS IN IMPLEMENTING CRITICAL CARE BUNDLES BY STAFF NURSES WORKING IN CRITICAL CARE UNIT OF SELECTED HOSPITALS OF INDORE

*** Alexcy Mary Alex, **ShwetaPattnaik, ***Dr. Manju Joshi, **** Dr. Ratan Shahajpal**

Abstract

A care bundle is a group of three to five evidence- based interventions. A key principle of care bundles is that there should be a high level of adherence to all components. According to WHO1, “Health care- associated infections are the most frequent adverse event in health- care delivery worldwide.” The present study was conducted to find out the barriers in adopting critical care bundles (VAP, CAUTI, CLABSI) by staff nurses working in critical care unit. A total of 60 samples were selected from two Hospitals. Participants for the study were selected through non- probability purposive sampling technique. Data were collected by using Practice-Observational Checklist and Open Ended Questionnaire. Findings revealed that the practice of VAP in hospital A 18 (60 %) & inhospital B 14(46.66%) was average (majority), Practice of CAUTI in both the hospitals was in average category (majority). The practice of CLABSI had a drastic difference in both the hospitals; in Hospital A, 17(56.66 %) majority of the samples were in good category whereas in Hospital B 16 (53.33%) maximum samples were in poor category and rest in good category. There is a significant association between age of staff nurses working in hospital B and practice of VAP & CAUTI at the level p□0.05. There is a significant association between gender of staff nurses working in hospital B and practice of VAP at the level p□0.05. Exploration of barriers in implementing the critical care bundles and strategies for effective implementation of critical care bundles was done. The explored barriers are inter linked with each other, which is a call forhealth care systems to focus on these matters.

Keywords: Critical Care Bundles, Practice, VAP, CAUTI, CLABSI, Implementation, Barriers, Staff Nurses

BACKGROUND

A care bundle is a group of three to five evidence- based interventions. Most elements of care bundles used in critical care are delivered within the critical care environment.” It says that, a key principle of care bundles is that there should be a high level of adherence to all components. Reasons for clinical

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variance should be clearly documented in other words, variation from the bundle where necessary, should always be a matter of positive decision, rather than a passive act of omission. (Continuing education in Anesthesia Critical Care and Pain, 2012)[2]

"Critical Care Nurses, care for patients with acute and unstable physiologic problems, and their caregivers. This involves assessing life threatening conditions, initiating appropriate interventions, evaluating the outcomes of the interventions and providing education and emotional support to caregivers. Critical Care Units are designed to meet the special needs of acutely and critically ill patients". (Lewis, 2015)[3]

NEED FOR THE STUDY

A movement is to be started aiming control of hospital acquired infection. The health ministry had issued guidelines for healthcare institutions to prevent transmission of infections. The move is significant as almost 40% of patients admitted in public hospitals are vulnerable to life threatening infections. While hospitals are regarded as better for patient care, health experts say, chances of catching infections there are also at around 20-25%.(THE TIMES OF INDIA FEBRUARY 24, 2016)[4]

Health care - associated infections or infections acquired in health - care settings are the most frequent adverse event in health - care delivery worldwide. Millions of patients are affected by health care - associated infections worldwide each year, leading to significant mortality and financial loss for health systems. Of every 100 hospitalized patients at any given time, 7 in developed and 10 in developing countries will acquire at least one health care - associated infection. (World Health Organization, 2015)[5]

By over viewing the above mentioned facts and revealed documentations and personal experiences as a critical care unit staff nurse, the researcher came up with a need to explore the areas of barriers in adopting the bundles in practical scenario.

PROBLEM STATEMENT

An exploratory study to identify the barriers in adopting critical care bundles among staff nurses working in critical care unit in selected hospitals of Indore in the year 2017

OBJECTIVES

- To explore the practice of staff nurses handling critical care bundles.
- To find out the barriers in adopting critical care bundles.
- To communicate the findings of the study to the directors of the institution with suggestions for changes needed.

HYPOTHESIS

H0: There is no significant difference between selected socio demographic variables of staff nurses and practice of critical care bundle at level p□ 0.05.

H1: There is significant association between selected demographic variables of staff nurses and practice of critical care bundle at the level p□ 0.05.

METHODOLOGY

Research Design: Descriptive research design

Population: Staff nurses working in critical care unit

Sampling Technique: Non - probability purposive sampling

Sample Size: 60

Setting: Hospital A & Hospital B

Tool: Practice - Observational Checklist and Open Ended Questionnaire

Section 1: Socio - demographic variables of staff nurses

This section consisted of 7 items for obtaining information about selected demographic variables such as age, gender, educational qualification, years of experience, previously worked area, experience in critical care unit, working hours.

Section 2: Observation - Practice Checklist

It consisted of 3 items for obtaining information about practice of staff nurses regarding VAP, CAUTI and CLABSI prevention protocol. Each of the bundle has sub components and the practice is categorized as poor , average , good and excellent; marks ranging from 0 - 2. Scoring of VAP, CAUTI, CLABSI was done as 0-5 considered as poor, 6-10 as average, 11-15 as good, 16-20 as excellent (VAP), 0-7 considered as poor, 8-14 as average, 15-21 as good, 22-28 as excellent (CAUTI), 0-6 considered as poor. 7-12 as average, 13-18 as good, 19-24 as excellent (CLABSI).

Section 3: Open Ended Questionnaire

This section consists of an open ended questionnaire (10) covering the questions regarding exploration of barriers in implementing critical care bundles.

Pilot Study: The predominant objectives of the pilot study were to help the investigator to become familiar with the use of the tool and to find out any difficulties to conduct the main study. The investigator obtained the written permission from the concerned authorities. Pilot study was conducted from 24 April 2017 to 27 May 2017 in critical care unit of sample size was ten staff nurses from critical care unit.

Procedure for Data Collection: Written permission was obtained from the administrative authorities and research ethical committee prior to data collection. A total of60 samples were taken by the purposive sampling method for the study. The actual data collection period was from 16th of August to 6th of October 2017. The procedure for data collection was divided into pre-procedure, procedure and post procedure.

Pre- procedure: Permission was taken from the hospital authorities, selection of the

samples as per the inclusion criteria of the study was done, and informed written consent was taken from the subjects.

Procedure : Observation of practice of staff nurses while caring patients on ventilators, having indwelling urinary catheter , central line was done with practice observational checklist. The barriers of staff nurses in adopting post insertion care bundle were assessed with open ended questionnaire.

Post procedure: The findings of the study were documented and communicated to the directors of the institution.

FINDINGS

1) Section I- Socio demographic variables

In Hospital A : It was revealed that in Hospital A, 28 (93.33 %) staff nurses belonged to the age group of 21-25 years and 2 (6.66 %) belonged to the age group 26-30 years . It was found that in Hospital A the samples belonging to male category was 4(13.33 %) and females were 26 (86. 66%). In Hospital A majority of the samples had passed B.Sc. (N) i.e. 26 (86.66 %) , 3 (10 %) GNM and 1 (3.33 %) PBB.Sc. (N). In Hospital A, maximum samples had experience between 1-5 years i.e. 23(76.66 %) and 7(23.33%) had experience less than 1 year. In Hospital A, 30 (100%) samples were having working schedule of 12 hours.

In Hospital B : 9 (30%) were in the age group 21-25 years , 16 (53.33 %) were in the age group of 26-30 years , 3 (10 %) were in the age group of 31-35 years and 2(6.66 %) were in the age group of 36-40 years . In Hospital B, female and male samples were in equal proportion i.e. 50% each. In Hospital B, 18 (60%) of the samples had pursued G.N.M. , 3 (10 %) PBBSc. (N); and 9 (30 %) of the samples (B.Sc. (N) }. In Hospital B, 30 (100%) samples were having working schedule of 8 hours.

2)Section II- Practice of critical care bundle

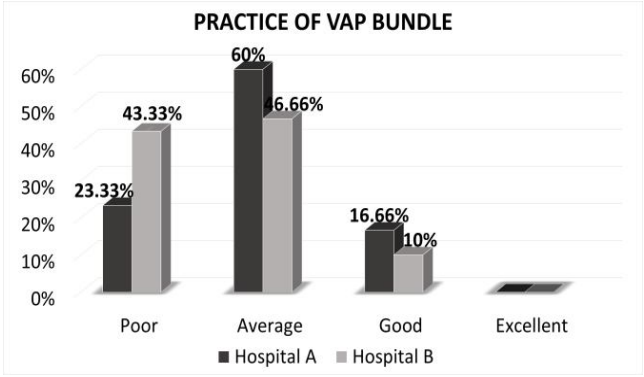


Figure 1: Bar diagram showing practice of VAP Bundle by staff nurses working in Hospital A& B.

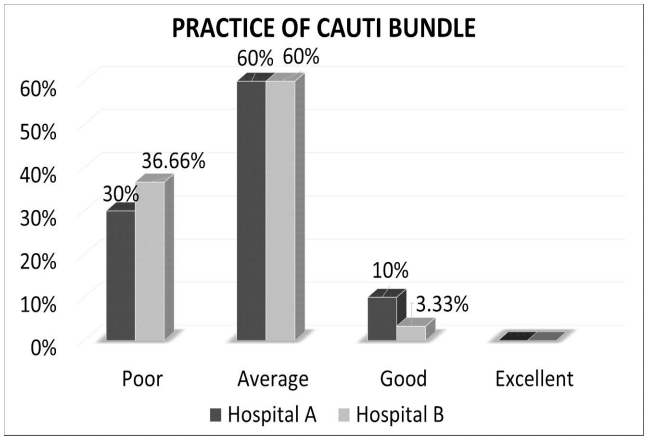
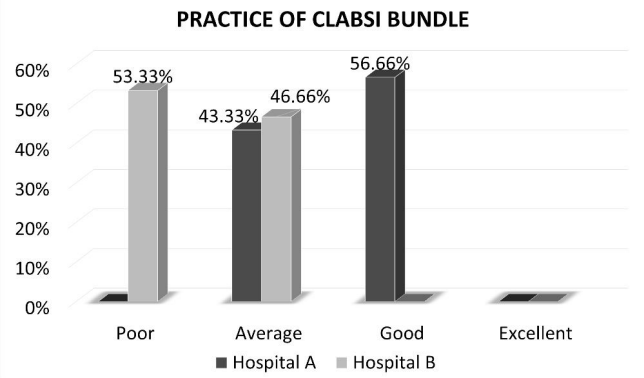


Figure 2: Bar diagram showing practice of CAUTI Bundle by staff nurses working in Hospital A & B.

Figure 3: Bar diagram showing practice of CLABSI Bundle by staff nurses working in Hospital A & B.

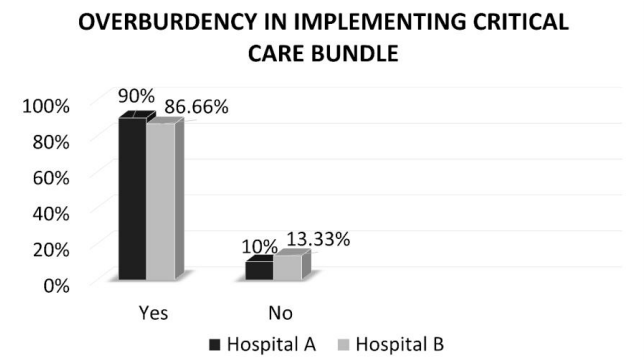


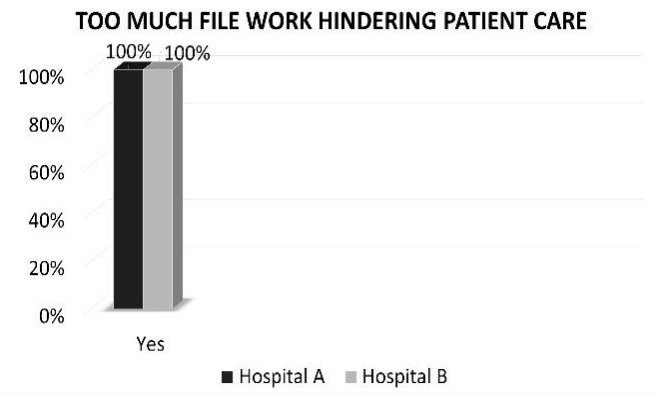
In the above Fig1,2,&3 Hospital A 7 (23.33%) staff nurses were having poor practice of VAP Bundle, 18 (60 %) had average practice of VAP Bundle , 5 (16.66 %) had good practice of VAP Bundle . 9 (30 %) staff nurses were having poor practice of CAUTI Bundle, 18 (60 %) had average practice of CAUTI Bundle , 3 (10 %) had good practice of CAUTI Bundle. 13 (43.33 %) had average practice of CLABSI Bundle , 17 (56.66 %) had good practice of CLABSI Bundle .

Whereas in Hospital B,13(43.33 %) had poor practice of VAP Bundle, 14(46.66%) had average practice of VAP Bundle , 3(10%)had good practice of VAP Bundle.11(36.66%)had poor practice of CAUTI Bundle , 18 (60 %) had average practice of CAUTI Bundle , 1 (3.33 %) had good practice of CAUTI Bundle , 16 (53.33 %) had poor practice of CLABSI Bundle , 14 (46.66 %) had average practice of CLABSI Bundle.

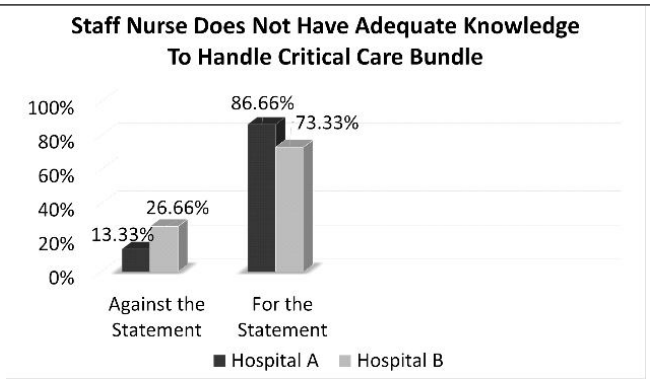
3) Section III- Open ended questionnaire

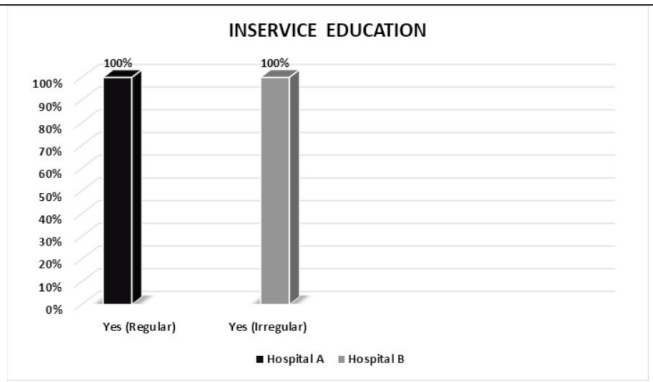
The common barriers found in both the hospitals were: Lack of adherence to hand hygiene compliance , Poor surveillance , Negligence in care , Increased file work , Lack of manpower , Improper nurse patient ratio . Lack of work co ordination heavy workload , Extended duty hours, frequent change of protocols, poor nurse patient ratio , very low pay scale, no proper training of infection control policies , posting staff without adequate training and less skilled staff, lack of personal interest, direct placement, language issues of staff nurses. Cultures are not being sent on time though patient had shown sign of infection ,Lack of coordination in the unit, Over dominance of doctors (use abusive words), Shortage of material supply, Lack of staff encouragement.

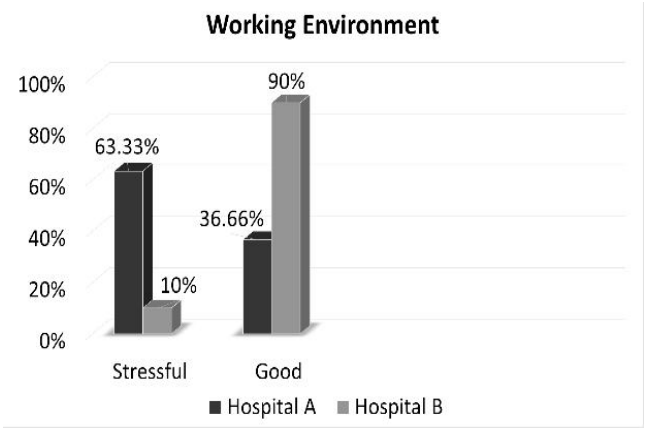


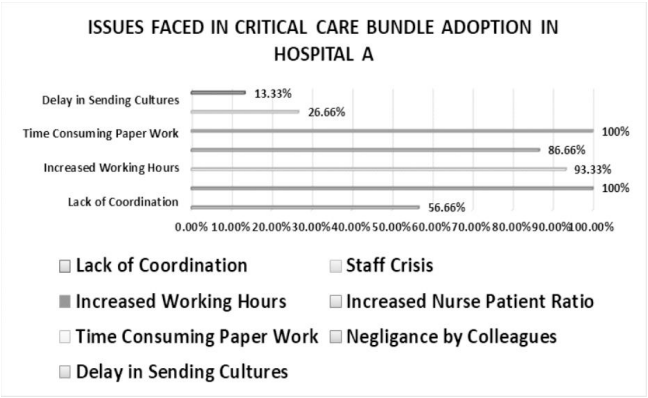


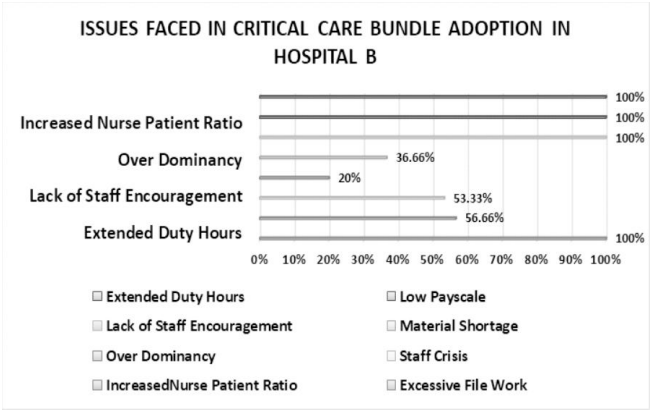
Strategies suggested by staff nurses for best











implementation and outcome of application of critical care bundles were as follows:

- Before making available checklists in units it should be explained in detail,
- Staff appointed in critical care setting should be trained enough ,
- Timely cultures should be send, File work should be reduced.
- Duty hours should be reduced, Good pay scale, Maintain sufficient staff,
- Proper nurse patient ratio, Increase isolation rooms,
- ICU should be constructed in division to facilitate fumigation,
- Staff should know to manage time,
- Effective team work,
- Strict surveillance,
- Strict hand hygiene practice,
- Sufficient material supply,
- Sepsis management training should be given,
- In-service education should be conducted regularly

DISCUSSION

This study explored the perceived barriers in implementing critical care bundles by staff nurses working in critical care units. The

findings of the present study have been discussed with objectives, hypothesis and review of literature.

Association between practice score of care bundles and selected socio- demographic variables of staff nurses-

The findings of the present study showed that there is no significance between practice of VAP Bundle and selected socio demographic variables of staff nurses working in Hospital B.

But there is a significant association between practice of VAP Bundle and selected socio demographic variables such as age, gender of staff nurses. Age (at df_9, X^2 value 25.18 and table value = 16.92), gender (at df_3 x^2 value = 7.9 and table value = 7.82) of staff nurses working in Hospital B. Hence H_1 i.e. There is significant association between selected socio demographic variables of staff nurses and practice of critical care bundle at the level p□0.05 was accepted for these variables.

The above findings were supported by a study carried out in order to examine the effect of a structured teaching program for prevention of ventilator associated pneumonia on knowledge and practices of intensive care nurses at Central Quwesna Hospital, in Egypt. Purposive sample consisted of all nurses, (30nurses). Pre/ posttest interview questionnaire sheet was designed, an observational checklist (pre / posttest), and teaching program for prevention of VAP. The study findings revealed that, 30 % of respondents were in the age group of 21-25 years followed by 36.7 % in the age group of 26-30 years and 33.3 % in the age group of above 30 years with a mean age of 32.32 years. Also, in relation to gender, 76.7% of nurses were found to be females. As well, it was cleared that none of the nurses in the study sample had satisfactory total knowledge score at the pre program implementation, however, the score of total knowledge increased immediately after the program, and continued to be higher at the first follow - up phase. Also, none of the nurses in the studied sample adequate practice at the pre program phase, however, the score of total practice increased immediately after the program, and continued to be higher at the first follow up phase. Moreover, a strong positive correlation was found between age, experience, knowledge, and practices of study subjects. As well knowledge and practices were positively correlated. (Amina I.Badawy,2014)[6]

The findings of the present study showed that there is no significance association between practice of CAUTI Bundle and selected socio demographic variables of staff nurses working in Hospital B.

But there is a significant association between practice of CAUTI Bundle and selected socio demographic variables such as age (at df_9 x^2 value = 26.51 and table value= 16.92) of staff nurses working in Hospital B. Hence H_1 i.e. there is significant association between selected socio demographic variables of staff nurses and practice of critical care bundle at the level p□0.05 was accepted. The researcher regrets for not finding any studyto support or negate these findings.

The other practice score of care bundles and socio- demographic variables were found to have no association between them.

Though statistically not able to prove, still the researcher states that the presence of the barriers is actually hindering the practice as they are not able to give their maximum to patient care.

The above statement is supported by a study done on five surgical ICUs in the National Taiwan University Hospital. A multidisciplinary teamwork was involved in this bundle care. This study analyzed the SICU utilization, ventilator utilization, and VAP incidence between January 2006 AND March 2013 to assess the impact of VAP bundle in a clinical setting. A total of 28,454 SICU patients were analyzed in this study. Study result had confirmed the efficacy of VAP bundle care in decreasing the ventilator utilization and VAP density (reduction rate of 9.9 % and 57.6 %,respectively). During the period of promotion of bundle care, they noticed that the VAP density had reduced just after VAP bundle implementation. However, there was a cluster of higher VAP density from July 2011 to November 2011. The factors that contributed to this result found that some health - care workers did not perform the VAP bundle well during the period. Hence, they had promoted the bundle care concept again through re education, posters, and by standardizing medical interventions and equipment in December 2011. Through this VAP bundle promotion and re education, both bundle compliance rate and VAP density had improved well. Therefore, continuous education and promoting compliance of health care workers to bundle care are important. (Kim PengLim,Shuenn Wen Kuo,2013)[7]

CONCLUSION

With the concluding phase of the research, the researcher felt overall experience as different, adventurous and really a tough path with lot of hurdles, but still patience and interest helped to overcome those hurdles and made the study fruitful. There was constant and tireless effort of guide and co-guides who guided the researcher in successful completion of the study. This type of study should be conducted on a larger scale and on longer period. Mixed and Qualitative studies will give more weightage and meaning for this type of study. Follow up of the changes made in the institutions is much needed.

Acknowledgement: I am thankful to all the participantsas well as the administrators of hospitals who have willingly participated in the study.

Conflict of interest: None

Sources of funding: Self

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What does this study convey?

Research studies on exploring barriers in the implementation of critical care bundles explores the current practice and need of change required in the health care system. Involving nursing staff in research project is also on the rise as the health care industry looks for ways to save more lives while reducing costs. Patient safety is an essential and vital component of quality nursing care, which can be achieved through practicing evidence-based practice. Encourage the staff nurses to do small studies in their unit. However, in a situation of defective nurse patient ratio and crisis: it is not possible. So, the focus should be made to rectify the barriers to give quality care and holistic care to the patients.

Who will use these findings?

The findings of this study will assist hospital administrators in understanding the existing practice environment for various care bundles and taking suitable efforts to address the pressing requirement for quality patient care outcomes.

How can the findings be put into practice?

The findings of the present study have its maximum implication in the nursing practice. Exploring the barriers in implementing critical care bundles facilitates for safe and evidence based practice and rendering quality care to the patients . Barriers hinder the pathway of effective application of critical care bundles. The main victim of this process is patients. Continuous education to staff nurses is necessary to maintain professional standards and for giving cost effective quality care to the patients. Preventing HAI's ultimately reduce hospital stay. Teamwork is the key factor for successful running of a unit.

Nurses as administrators can bring effective change in the health care system: they should be autonomous and assertive and act as advocates for their patient as well as for their team. The administrator should also focus on staff satisfaction, periodic performance appraisal and strive to maintain standards of nursing profession. If the above mentioned points will be covered, it will on the other hand affect the practice of staff nurses. Nurse administrator should make a check on the daily surveillance. It is better if division of labor exist as it facilitates better outcome of work. Patient deaths in hospitals might be reduced by easing nurses workloads and emphasizing education.

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A CROSS SECTIONAL STUDY ON KNOWLEDGE ABOUT GESTATIONAL DIABETES MELLITUS AMONG PREGNANT WOMEN WITH GESTATIONAL DIABETES MELLITUS

***Moe Moe Aung, **Ohnmar Myint, ***Moe Wint Aung**

Abstract

GDM affects maternal health causing (pre-eclampsia, cesarean delivery) and neonatal adverse outcomes (macrosomia, shoulder dystocia, birth injuries, hypoglycemia, Respiratory distress syndrome) and also increase the risk of future type 2 diabetes in mother as well as the baby. A cross-sectional study was conducted with the objective of assessing knowledge of GDM among pregnant women with GDM attending Diabetes clinic of Yangon General Hospital (YGH) in Myanmar. A total of 195 women were interviewed by using face-to-face, semi-structured interviews guided questions from July 2020 to February 2021. All data were descriptively analyzed. In the present study 85(43.6%) had low level of knowledge about risk factor, 109 (55.9%) had moderate level of knowledge about prevention and treatment and 117 of respondents (60%) had low level of knowledge about the consequences. Although in general, total knowledge about GDM, more than 55% had moderate level of knowledge. There is a positive correlation between education status of respondents and level of knowledge (p=0.015). Therefore, to gain the necessary knowledge and skills for improvement of outcomes to the women with GDM, by using easy accessible ways for every woman with different educational status, is an important issue. Nurses should play an important role as nurse educator for pregnant women with GDM in Myanmar.

Keywords: Gestational diabetes mellitus(GDM), Knowledge, pregnant women.

Background

People are faced with various critical periods in their life at least once. Among them, one of the most critical periods in a woman's life is having pregnancy. Outcome of pregnancy is related not only to the socioeconomic status but also to educational background of women and their families. The most frequent metabolic disorder during pregnancy is Gestational Diabetes Mellitus (GDM). GDM is defined as glucose intolerance that begins or first recognized during pregnancy.[1] **GDM** is a condition in which a hormone made by the

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placenta prevents the body from using insulin effectively. Glucose builds up in the blood instead of being absorbed by the cells. It can happen at any stage of pregnancy, but is more common in the second or third trimester. [2]

Need of the study & Review Literature

Global estimates of pregnancies related to hyperglycaemia were at 21.3 million, of which approximately 17.8 million being related to GDM. Therefore 1 in 6 births were suffering from gestational diabetes.[3] Hyperglycaemia complicating pregnancy is estimated to affect approximately 25% of pregnancies in South-East Asia, with the highest prevalence.[4] Approximately one in 10 pregnant women in Eastern and Southeastern Asia had GDM and the prevalence rate was higher than African countries by 10.1%.[5]

In Myanmar, recently one in seven pregnant women in Myanmar tends to develop gestational diabetes.[6] The prevalence of impaired oral glucose tolerance test (OGTT) was 7.5% and diabetes mellitus in high risk pregnancies in Myanmar is 6.5 % using WHO 1999 criteria.[7] According to the Tint Swe Latt 2003, the prevalence of GDM was 2.44% by ADA 2003 diagnostic criteria, 12.19% by WHO 1999 diagnostic criteria.[8] The prevalence of GDM was reported to be 18.6% among 171 apparently healthy pregnant women attending the antenatal clinic of the North Okkalapa General Hospital(NOGH) by using 75-g one step OGTT , 2006 WHO recommendations for diagnostic criteria. [9]The prevalence of GDM in high risk pregnant women was 32.5 percent among 123 women with one or more risk factors in NOGH.[10] By using the national Institute for Health and Care Excellence (NICE) Guideline 2015, 41.3 percent were found to be GDM at 24 to 28 weeks of gestation among the 150 women with at least one risk factor for GDM in antenatal clinic of NOGH and Thingangyun Sanpya General Hospital.[11] The evidence of the above studies showed that the prevalence of GDM was increasing trend over recent years in Myanmar.

Moreover, increasing numbers of women with GDM are found in antenatal clinic of tertiary hospital of Myanmar. There were 1086, 1248 and 1931 pregnant women who visited to outpatient department of NOGH for antenatal care in 2016, 2017 and 2018 respectively. Among them, 303 and 536 GDM women were newly diagnosed in 2017 and 2018 (NOGH, 2018).[12] So also women with newly diagnosed GDM were 843, 966 and 1334 in 2018, 2019 and 2020 respectively in Yangon General Hospital records.[13] This data showed that prevalence of GDM hugely increased year by year among pregnant women. Therefore there is utmost need to search for ways to control of GDM.

GDM affects maternal health causing (pre-eclampsia, cesarean delivery) and neonatal adverse outcomes (macrosomia, shoulder dystocia, birth injuries, hypoglycemia, Respiratory distress syndrome) and also

increase the risk of future type 2 diabetes in mother as well as the baby.[14] It is important for women with diabetes in pregnancy or gestational diabetes (GDM) to get adequate control and frequently monitor their blood glucose levels to reduce the risk of adverse pregnancy outcomes.

To prevent unwanted consequences of diseases, greater knowledge leads to a better understanding of the underlying nature of disease and helps in reducing impact on the progression of the disease and complications.

Therefore, to be able to find ways to prevent higher prevalence of diabetes, a cross-sectional study was performed to assess knowledge of GDM among pregnant women with gestational diabetes attending Diabetes clinic of Yangon General Hospital (YGH) in Myanmar.

Objective

This study aims to assess knowledge of gestational diabetes among pregnant women with GDM attending Diabetes clinic of Yangon General Hospital (YGH) in Myanmar.

Hypothesis

H01: There is no association between level of knowledge and socio-demographic characteristics of the respondents at the level $p<0.05$.

H1: There is a significant association between level of knowledge and socio-demographic characteristics of the respondents at the level $p<0.05$.

Methodology

Research design: This study examined cross-sectional data obtained from a survey that aimed to evaluate GDM-related knowledge among pregnant women with GDM in Myanmar.

Population: The study population was all pregnant women with GDM booked at Diabetes clinic of YGH in Yangon division.

Sample: Pregnant women with GDM who attended Diabetes clinic of YGH in Yangon region were selected according to the inclusion criteria. Pregnant women who were newly diagnosed, monogamy, 22 to 28 week of pregnancy and those who met criteria were put in sample population. Pregnant women with previous Type 1 and Type 2 diabetes, language barrier or poor communication, medical personnel or working in the medical field, and with co-morbid diseases such as hypertension, dyslipidemia, CVD were excluded from sample population.

Setting: This study was conducted in Diabetes clinic of Yangon General Hospital (YGH) owing to many reasons. This hospital is biggest tertiary hospital in Yangon division. GDM care services which were developed for high referral rate of pregnant women with GDM in lower Myanmar since 2016. GDM care was provided two days per week in YGH diabetes clinic.

Pilot Study: Pretesting of questionnaire would be done with 20 pregnant women with GDM from North Oakkalapa General Hospital which was not included in the study area in order to evaluate the tool's reliability, clarity and applicability of questionnaire.

Data collection Period: The study was conducted during the months of July 2020 to February 2021.

Tool:

I. Socio-demographic data of the respondents

The socio-demographic data contained (20) questions on age, education, occupation, gravid and, family history of diabetes and sources of knowledge getting about GDM.

II. Questionnaire of Knowledge about GDM

Questionnaire of this research is based on the booklet of Managing Gestational Diabetes: A Patient's Guide to a Healthy Pregnancy[15] and Gestational Diabetes Mellitus.[16] The sub-scale domains include risk factors, prevention and treatment, GDM consequences. The GDM-related knowledge instrument included 32 questions, consisting of four questions about risk factors, twenty four questions about prevention and treatment, four questions about GDM consequences of GDM. Each question required “yes”, “no”, or “don't know” response, with a correct answer given one and incorrect or “don't know” scores given zero. Knowledge scores were converted to indicate the percentile or percentage; a high score indicated a high GDM related knowledge level. The minimum score and maximum score of the knowledge questionnaire were (0) and (32) marks respectively. The level of knowledge were defined by score above (24) marks high level of knowledge, score between (16) and (24) marks moderate level of knowledge and score below (16) marks low level of knowledge.

The S-CVI/UA = 0.65 and the S-CVI/Ave = 0.96 for knowledge questionnaire. The average CVR values were 0.88. Cronbach's alpha for knowledge questionnaires was 0.858.

Data collection Procedure: Pregnant women attending diabetes clinic OPD in YGH who met the criteria were invited for participation. Objectives of the study were explained by the researcher and their willingness to participate in the study and also the eligibility criteria were assessed. The written informed consent was obtained from those having eligibility criteria. The basic questionnaires including socio-demographic characteristics, and knowledge about GDM were completed through interview. Data were collected by using pretested self administered structured questionnaire. Although, face-to-face interviewing was more costly than other data collection methods, it was used to ensure the accuracy of data and to facilitate the high rate of completed questionnaire. Applying this method, the quality of information was obtained in the present study. In addition, they

had the opportunity to ask for clarification of unclear questions during the interview.

Ethical considerations: Prior to the study, an approval of the Research Ethics Review Committee of Military Institute of Nursing and Paramedical Science and permission from administrative authority of the study area were obtained. The study respondents were informed that participation in the study was voluntary and that the data would be used only for the present study. Study participants read and signed a statement of informed consent. The ethical principles such as voluntary participation and confidentiality of respondents were assured. Code number was used to protect the anonymity of the individuals and all data were stored in a secure place.

Data analysis: All statistical analyses were performed using the Statistical Package for Social Sciences software 22.0. Respondent's general characteristics, family history of DM, and GDM-related knowledge level were presented with percentage. Association between knowledge of gestational diabetes with socio-demographic characteristics of respondents were assessed by chi-square test with statistical significance was accepted at $p < .05$.

Findings

Section I: Socio-demographic data of the Respondents

A total of 195 pregnant women were included in this study, 16(8.2%) maternal age <23 years old, 24 28 years old 45(23.1%), 29 33 years old 62(31.8%), and 34 38 years old 72(36.9%). Mother's last education was primary school (10.8%), middle school (17.4%), high school (41.5%) and university graduate (30.2%). Most of the mothers were housewives (61%), daily wage labour (3.6%). company staff (13.3%), self employment (20.0%) and civil servants (2.1%). Moreover, 41.5% of respondents were primigravida while 58.5% were multigravida. There were 126 (64.6%) had family history of diabetes and 103 (52,8%) knew about the impact of diabetes on their pregnancy.

Section II: Sources of knowledge about GDM

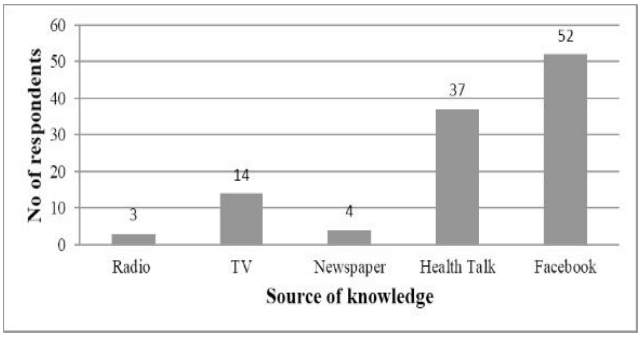

Fig. (1) ***Sources of knowledge about GDM***

Figure (1) showed the sources of knowledge about GDM. There were 110 respondents (56%) who received knowledge about GDM and others (44%) did not receive knowledge before study. Among these, 52 (26.7%) obtained information from Facebook and 37(19.0%) from Health talk and rest were from newspaper, TV and radio.

Section III: Knowledge about GDM

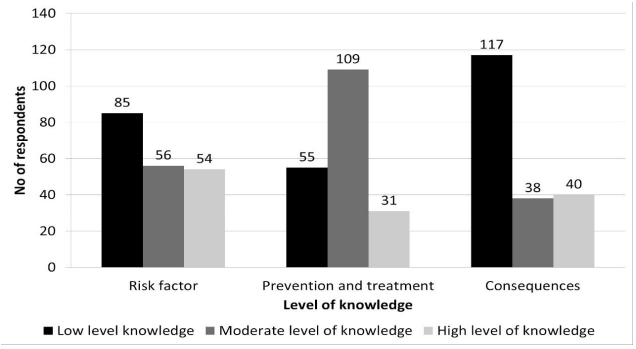

Fig.2 Level of Knowledge in subscale domain of GDM among respondents

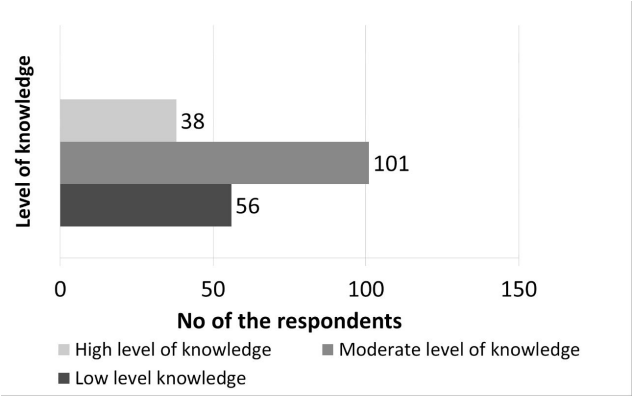

Figure (3) General Total Knowledge about GDM among respondents

Figure (2) and (3) showed the level of knowledge in subscale domains of GDM and general total knowledge among respondents. Among the total respondents, 85(43.6%) had low level of knowledge, 56 (28.7%) had moderate level of knowledge and 54 (27.7%) had high level of knowledge about risk factor. However, most of the respondent 109 (55.9%) had moderate level of knowledge about prevention and treatment. Similarly 117 of respondents (60%) had low level of knowledge about the consequences. Although in total general knowledge about GDM, more than 101(55%) had moderate level of knowledge.

Section IV: Association between knowledge of gestational diabetes with socio-demographic characteristics of respondents

Table No.1: Association between education status with level of knowledge about GDM among respondents (N=195)

Education	Level of Knowledge			Significance	
	Low	Moderate	High	Chi Square	P Value
Primary school	9	10	2	12.536	0.015
Middle school	17	12	5		
High school	21	47	13		
University graduate	9	33	17		

Among the socio-demographic characteristics, education was found to be significantly associated with level of knowledge among respondents about GDM (p = 0.015). Other socio-demographic characteristics of respondents like occupation, family history of DM, Gravida had no significant association with knowledge about GDM in this study. Table No.1 showed the association between education status with level of knowledge about GDM among respondents.

Discussion

Gestational Diabetes Mellitus (GDM) has emerged as a global public health concern.[17] Because of a high-risk condition during pregnancy, GDM leads grave risks to the mother and fetus. And it is a complicated

illness that requires individual patient to adhere to various recommendations in making day-to-day choices and also have personal capability of diverse self-management abilities. Knowledge and awareness about this chronic disease will translate to an increase in self-care as a result of early diagnosis and treatment, which ultimately will contribute to complication reduction.

Among 195 respondents, most of the respondents' age range from 29-33 years and 34-38years with mean age as 31.2 years in the present study. More than 40% were high school completed and 60% were housewife. The result was different from a descriptive cross-sectional study which was done in rural hospital, Murud. In Murud study, 48.19% were in the age group 21-25 years and mean age of the women was 22.9 years. Most of them were housewives (89.12%) and 90.15% were literate.[18]

In the present study major source of knowledge about GDM were obtained from Social media of Facebook. In the study by Shriraam et al major source of knowledge about GDM were television or radio, friends and family member.[19]

There were 43.6% and 60% had low level of knowledge about GDM risk factor and consequences about GDM consecutively. And more than 55% had moderate level of knowledge about prevention and treatment about GDM in the present study. Above results were slightly lower in GDM risk factor and similar in consequences and prevention and treatment about GDM in the study done by Mufdlilah et al in Indonesia. In such study *91% and 67% had* low level of knowledge *about* GDM risk factor and consequences about GDM and 48% in prevention about GDM.[20] Therefore, it is important to provide health education about risk factors in first antenatal visit to prevent having GDM in late trimester. After diagnosis of GDM, pregnant mothers with GDM need to know about the consequences of GDM for prevention of maternal and neonatal mortality and morbidity. Moreover to adhere the self care measures by counseling and enforcing with health care personnel is also necessary.

Regarding the general total knowledge scores, there were more than 50% of the respondents had moderate level of knowledge. The result was slightly higher than the study of knowledge regarding Gestational Diabetes Mellitus among pregnant mothers and self care practice of Gestational Diabetes Mellitus management among mothers with diabetes in pregnancy attending selected hospitals of Kottayam District. In above study more than 30% had moderate level of knowledge**.** [21] Therefore health education programs to increase public awareness about gestational diabetes mellitus in all health care centers are essential.

In the present study, educational of a mother

was found to have statistically significant association with their level of knowledge about GDM with $p<0.05$. This was similar with the study done among 191 antenatal mothers in Maternity Health Centre and Government Hospital, Chidambaram. In above study, participants with higher educational status were found to have significant higher mean knowledge score.[22] Educated women have greater access to gain knowledge and better understand the health information given by the health personnel during antenatal visits. Therefore health education is needed to provide with proper ways for understanding by each person with different educational status.

Conclusion

Myanmar pregnant women with GDM have fair knowledge about GDM. Respondents know about how to do prevention and treatment in gestational diabetes mellitus. However, they do not know risk factors for gestational diabetes mellitus and complications that can occur. Education and counseling are best choices for their own and their baby's health. The importance of education and training in GDM not only helps the management of disease and reduction of maternal and neonatal complications but also will reduce the risk of maternal and neonatal type II diabetes in the up-coming years.

Conflict of interest: No potential conflicts of interest relevant to this article are reported.

Source of funding: Self

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What does the study convey?

In Myanmar, Diabetes educator service is not well formed. To gain the necessary knowledge and skills for improvement of outcomes to the women with GDM by using easy accessible ways for every woman with different educational status is an important issue.

Who will use these findings?

Nurses should play an important role as nurse educator for pregnant women with GDM to promote women of knowledge by providing health information. And then authoritative in health planning will use these findings in supporting health system requirements.

How can the findings be put into practice?

Nurses can perform an important role in self-care management of women with GDM to improve necessary knowledge by health education, monitoring and acting as a mediator in relation to the success of the treatment for the success of the gestational outcome.

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EFFECTIVENESS OF SQ3R (SURVEY, QUESTIONING, READ, RECITE, RECALL) METHOD OF STUDY ON STUDY SKILLS AMONG NURSING STUDENTS

*** Adwin Anand Verma, ** Dr. Blessy Antony, *** M. Acharya**

Abstract

The SQ3R method is a learning strategy that was introduced by Dr. Francis Pleasant Robinson, a psychology professor at Ohio State University. The Abbreviation stands for Survey that advice to glance through a chapter in order to identify headings, sub-headings and outer outstanding features in the texts. Question states to convert heading and sub headings into questions and then look for answers in the content of the text. Read states to read the text completely in order to answer the questions formulated. Recite states to recall the answers to a section's questions from your memory and write them down. Review instructs diligent student to review all sections pertaining to any key words forgotten. This method helps the students to improve their learning style and study skills helping them to achieve good academic hold. Hence, a pre-experimental study was conducted to assess the effectiveness of SQ3R method of study on study skills among nursing students of selected nursing colleges in Indore. One group pre-test posttest design was adopted 40 nursing students of B.Sc. Nursing 1st year were selected using purposive sampling technique. Pre-test was conducted to assess the study styles, study skills and learning style using study skills inventory, Index of Learning Style and self Structured Unit test. Post test was conducted using the same tool. Statistical analysis revealed that significant association was found between study styles adopted by nursing students at present and selected socio-demographic variables like residential status, religion and age at the level p□0.05. There was no significant association found between learning styles, study skills and selected socio-demographic variable. The paired "t" test value between pre-interventional and post-interventional study skills inventory score ("t"= 7.93) was very highly significant at the level p□0.001. The paired "t" test value between pre-interventional and post-interventional self structured unit test score ("t"= 24.90) was very highly significant at the level p□0.001, which indicated that SQ3R method of study was effective on study skills of the nursing students.

Keywords: SQ3R (Survey, Questioning, Read, Recite, Recall) method, Study skills, Nursing students

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Background

According to **Dunken .L. (2010)**[1] Study Skills or Study Strategies are the approaches applied to Learning. They are generally critical to success in school, considered essential for acquiring good grades and useful for learning throughout one's life. With an effective study skill a learner can learn to do things easily and in less required time. It is asserted that, most students fail in examination simply because they lack study skills.

Study Skills are an array of skills, which may tackle the process of organizing and taking in new information or dealing with assessments. They include mnemonics which aid the retention of lists of information, effective reading and concentration techniques as well as efficient note-taking. Study skills means discrete technique that can be learned, usually in short time and applied to all or most fields of study. Study Skill is referred as the method or practice adopted by students to study a particular subject. Study skills are strategies and techniques that enable you to make most efficient use of your time, resources and academic potential. **Stevens Harbor (2011)**[2]

Many students do not study the way they should. Many have the learning problems either associated with genetics, environment or self. Overtime, students develop weak strategies to advocate their academic degradation which includes recording sketchy notes, organizing ideas linearly, learning in a piecemeal fashion and employing redundant methods like mugging up. This is why students forget much of the important information that is required for them to remember. These problems lay back the student's academic success resulting in other psychological issues. To solve these problems various psychologists have invented methods over years to overcome them and aid a student to live a productive life both personally and academically. One of these effective study strategies is SQ3R method which was introduced by Dr. Francis Pleasant Robinson, a psychology professor at Ohio State University, Robinson in his book titled as “Effective Study” in 1946. The method was created for college students but can be used in elementary schools for students. The Abbreviation stands for:

Survey: Survey or Skim, advises that one should resist the temptation to read the book and instead glance through a chapter in order to identify headings, sub-headings and outer outstanding features in the texts. This is in order to identify the ideas and formulate questions about the content of the chapter.

Question: Convert heading and sub headings into questions and then look for answers in the content of the text.

Read: Read the text completely in order to answer the questions formulated.

Recite: Recall the answers to a section's questions from your memory and write them down.

Review: Review instructs diligent student to review all sections pertaining to any key words forgotten.

Need of the Study & Review Literature:

According to **Edward J, (2011)**[3] any students

entering colleges and universities today are underprepared for the academic demands of the higher-level learning experience. These shortcomings are severe deficits in critical reading and thinking skills. In Indian scenario it is common and has now become mandatory to promote the students to higher classes even with the low grades which results in poor cognitive growth and undesirable attitude.

Cottrell Stella, (2013)[4] also stated that learning problems among the nursing students especially with the novice is the most common problem observed by the academicians as this is directly related to the brain's functions. Organically learning problems occur due to the degeneration of the neurons in the brain which is nearly irreversible or it may even occur due to the diverted attention leading to inability to concentrate. Which is why students perceive difficulty in learning any subject, diagram or article and restore that particular information at the time it's needed.

From here arises the need to improve the effective study strategies among students in India.

Problem Statement

A pre-experimental study to assess the effectiveness of SQ3R (Survey, Questioning, Read, Recite Recall) method of study on Study Skills among the Nursing Students of the selected Nursing Colleges of Indore

Objectives

- To assess the study skills among nursing students.
- To compare the learning styles among nursing students before and after the administration of SQ3R method of Study
- To evaluate the Unit test scores among nursing students.
- To compare the pre-test, post-test scores of Study Skills and Unit test scores of nursing students
- To compare the individual scores of unit test before and after the administration of SQ3R method of study among nursing students
- To evaluate the effectiveness of SQ3R method of study on study skills scores of nursing students
- To evaluate the effectiveness of SQ3R method of study on Unit test scores of nursing students

Hypotheses

$H_{1:}$There is a significant difference in the study skills among the nursing students before and after the administration of SQ3R method of study at the level $p \leq 0.05$

H2:There is significant difference in the Unit test scores before and after the administration of SQ3R method of study among nursing students at the level $p \leq 0.05$.

Methodology

Research Design: A pre-experimental one group pretest-posttest design was used to observe the effectiveness of Dr. Francis Pleasant Robinson's SQ3R method of study on Learning styles and Study Skills among the Nursing Students.

Setting of the Study: The present study was

conducted at R.D Gardi Nursing Training Center, Cloth Market Indore.

Population: In the present study, population consisted of all B.Sc. Nursing Student studying in the selected nursing college in Indore

Sampling technique: Non Probability Purposive Sampling Technique was used in the present study.

Sample Size: In this study, the sample comprised of total 40 B.Sc. Nursing 1st year students studying in the selected nursing college in Indore.

Tools: The tools used in the study by the researcher were divided into 5 sections:

Section A: Socio-demographic variable : This part consisted of 10 items to get the baseline data about selected factors such as Age, Sex, Educational status of the subject, Educational status of Mother & Father, Working status of Mother & Father, Religion, Area of residence, Records of grades in Class XII, Medium of instruction in which previous education had been done.

Section B: Semi- Structured questionnaire: This section consisted of the 7 semi-structured questionnaires to assess the study skills adopted by the nursing students at present. The questionnaire was framed in order to get the open responses from the nursing students regarding their preferred study styles.

Section C: Index of Learning Style Questionnaire by Richard M. Felder and Barbara A. Solomon: The questionnaire has 44 questions each with 2 options 'a' and 'b' to be marked the more appropriate one out of the two. The tool has different styles of learning which are as follows-

A) Active Learning- It is a type in which one tends to retain and understand information best by doing something active with it discussing or applying it or explaining it to others.

B) Reflective learning- It is a type in which one prefers to think about an information quietly first.

C) Sensing learning- It is a type in which one tends to like learning facts

D) Intuitive learning It is a type in which one often prefers discovering possibilities and relationships.

E) Visual learning- It is a type in which one remembers best what he seespictures, diagrams, flow charts, time lines, films, and demonstrations.

F) Verbal learning It is a type in which one gets more out of wordswritten and spoken explanations. Everyone learns more when information is presented both visually and verbally.

G) Sequential learning- It is a type in which one tends to gain understanding in linear steps, with each step following logically from the previous one.

H) Global learning- It is a type, in which one tends to learn in large jumps, absorbing material almost randomly without seeing connections, and then suddenly "getting it."

Section D: Study Skills Inventory: There were

six critical study skills given in the inventory like- Textbook reading, Note-taking, Memory, Test preparation, Concentration, and Time management. Overall, it included 51 items.

Section E: Self Structured Unit test: The self structured question paper was a set of 25 Multiple Choice Questions prepared from the Subject (Anatomy & Physiology) Unit- "Cardio-Vascular System" carrying 25 marks in total.

Reliability of the Tool: Test- retests measurements for reliability of Index of Learning Style and validity was carried out by several scientists and suggested to be 0.75 or greater and thus is acceptable. Similarly, Study Skill Inventory's reliability was found to be more than 0.89 which suggested that the tool is reliable to be used.

Pilot Study: Pilot study was conducted at SAIMS College of Nursing Indore (MP). A total of 15 days of intervention was planned for the study. 5 days session each comprising of 2 hours was taken where only one component of SQ3R method of study was taught to the students for 1 hour followed by the practice session for another 1 hour on a SQ3R worksheet. Students were asked to practice only SQ3R method while studying daily. Post-test was taken after 21 days of the intervention, that is, a 21 days study period was given to the students for self practicing the SQ3R method. The subjects taken for pilot study were not included in the main study. The analysis of the pilot study revealed that objectives of the study could be fulfilled. The study was found to be feasible and practicable.

Data Collection: The data collection for the main study was done at RD Gardi Nursing Training Center, Indore. Ethical considerations were fulfilled by taking the written permission from the authorities of RD Gardi Nursing Training Center, Indore. A total of 40 samples (40 students) through purposive sampling were screened for the study, which fulfilled the inclusion criteria of the study. There was no drop-out of the samples from the study therefore the study was conducted on all 40 samples. During the data collection, Index of Learning style questionnaire was used to assess the learning styles, study skills inventory was used to assess the study skills and self structured unit test was used to assess the unit test score of the samples.

FINDINGS

Section I: Assessment of the Socio-demographic variables among the nursing students

The socio-demographic variables of the present study showed that among 40 nursing students, 100% respondents were between the age group of 17-21 years. Females outnumbered males in a ratio 39 (97.5%):1 (2.5%). On viewing religion, most students belonged to Christian religion 25 (62.5%), Hindus were 12(30%), Muslim were 2(5%) and others only 1 (2.5%). Previous medium of Study for most of the Students was Hindi 22(55%) and English 18(45%) respectively. On viewing the Residential status, majority were Hostellers i.e. 22(55%) and day scholars were 18(45%). Percentage of marks obtained in the students in Class XII, majority (90%)

were under 50-60 percentage. Regarding the educational status of parents, the fathers 11 (37.5%) & Mothers 11 (27.5%) were found to be as Higher Secondary passed. The occupational status of fathers i.e. 25 (62.5%) were farmers which occupies the highest number, 6 fathers (15%) were teachers, 5 (12.5%) were Businessman and 4 (10%) were laborers. Regarding the occupational status of Mothers, 26 (65%) mothers were home-makers, 5 (12.5%) were doing tailoring job, and 5(12.5%) were Cooks, 3(7.5%) were teachers and 1(2.5%) was working in Bank.

Section II: **Assessment of the Study Skills adopted among the Nursing Students:**

Assessment of the Study skills of Nursing Students through Self Structured Questionnaire reveals that, 37 (92.5%) of students among both the groups do not study daily leaving only 3(7.5%) who do and more so they all study less than an hour. On asking the preferred study style, majority 14 (35%) of the student prefer to study silently while 13(32.5%) of nursing students have no fixed time for study. During examination, 11(27.5%) study 3 to 5 hours, 11(27.5%) study about an hour but less than 3 hours and 5 (12%) study less than an hour. Above all, during examination most of them 14(36.5%) prefer to study silently but alone, 11(27.5%) prefer to study in group, 10(25%) prefer to sit on bed and read aloud and least among all 5(12.5%) prefer to study alone and read aloud. Considering the level of difficulty, 37 (92.5%) face difficulty during study and the reasons reported were 13(32.5%) of students had a problem of forgetfulness, 11(27.5%) had problem of disturbance from friends, 11(27.5%) had problem of lack of concentration and 5(12.5%) nursing students had problems in comprehending the meaning of what they study and 26 (65%) students are not satisfied with their study styles.

Section III: Assessment of the difference in the learning styles among the nursing students before and after the administration of SQ3R method of study.

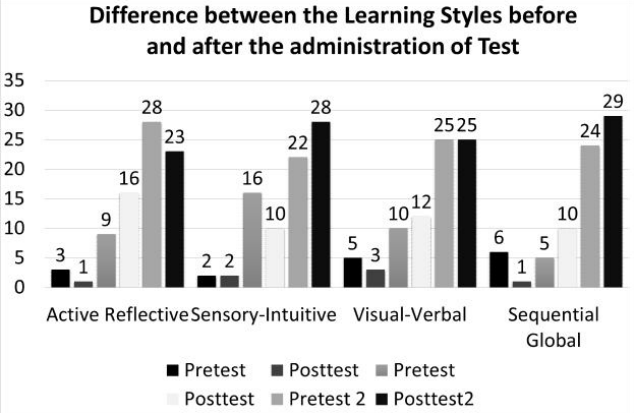

Figure 01: Bar graph diagram showing the difference in Learning Style of Nursing Students

Figure no.1 shows the Index of Learning Questionnaire assessment in that majority 3 (7.5%) has strong preference in Active-Reflective domain in pre-test that markedly changed to 1 (2.5%) in Post test. Similarly, 2 (5%) nursing students had strong preference in Sensory-Intuitive domain during Pre-test that remained unchanged during post test also. In Visual-Verbal Domain, 5(12.5%) had Strong Preference during pre-test that changed to 3(7.5%) in Posttest. Likewise in Sequential-Global domain, 6(15%) Nursing Students had strong Preference that changed to 1 (2.5%) during Posttest.

Section IV: Evaluation of the effectiveness of SQ3R method of study on Study Skills and Unit Test Scores among the Nursing Students.

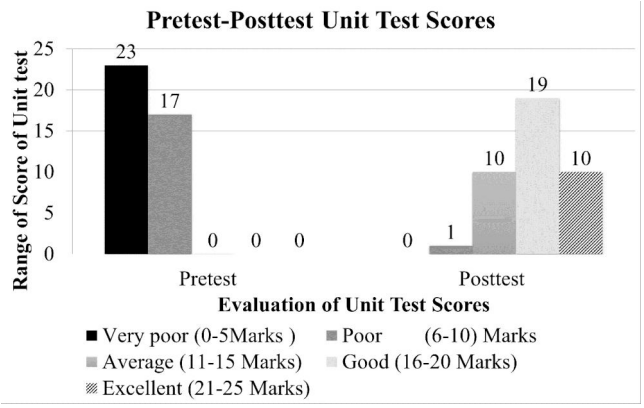

Figure no: 2: Bar graph Showing the Pretest-Posttest Scores of the Unit Test

Figure: 02 In Unit Test evaluation, in pre-test majority 23(57.5%) nursing students scored (0-5 marks) which was graded as "Very Poor", 17 (42.5%) scored (6-10 marks) graded as Poor. None of the students scored between 11& 25 hence not graded further. On the contrary, after the intervention, in post-test majority 19(47.5%) scored (16-20 marks), thus graded as "Good", 10 (25%) scored (21-25 marks) and were graded as "Excellent", 10 (25%) scored (11-15 marks) and were graded as "Average". Finally 1(2.5%) scored (0-5 marks) and hence were graded as "Very Poor" which shows the effectiveness of SQ3R method on study skills & scores of unit test.

Section V: Comparison of the Pre-test, Posttest scores of the Study Skills and Unit test among the Nursing Students.

The finding revealed that 40 (100%) Nursing Students scored below benchmarks which were less than 175 marks out of total 255 marks in all the sections of the Study Skill Inventory. Hence all the students require improvement in all the sections of the inventory. In Pretest the majority 25(62.5%) scored between (101-150 marks), 11(27.5%) scored between (151-200 marks). Merely 4(10%) scored between (51-100 marks). In the Posttest, majority 31(77.5%) scored between (151-200 marks). 5(12.5%) scored between (101-150 marks) and 4(10%) scored between (201-250 marks).

Section VI: Comparison of Individual Pretest-Posttest Unit test Scores of Nursing Students

The study finding revealed that during pretest majority 23 (57.5%) individual scored only between 0-5 (poor) marks but after the administration of SQ3R method of study the ranks drastically changed and majority 19 (47.5%) scored 16-20 (Good) marks. Remaining 20 (50%) changed to Average and Excellent ranking. Only 1 (2.5%) remained in Poor ranking.

Section VII: Evaluation of the Effectiveness of SQ3R Method of Study on Study Skills and Unit Test Scores of the Nursing Students.

Table No.1: Mean, Mean Difference, Standard Deviation, and Standard Error, "t" test value of Pre-test and Post-test of Study Skills Inventory (N=40)

Score	Mean	MD	SD	SE	df	't' Value	table Value
Pre-test	136.3	37.6	30	4.74	39	7.93 S***	2.023
Post-test	173.9						

P≤0.05* Significant

0p≤0.01** Highly Significant

p≤0.001 Very Highly Significant***

NS Non Significant S- Significant

Table 1 shows that there is significant difference between pre-test and post test score of Study skills inventory as "t" value is 7.93 at df 39 which is more than table vale 2.023 and is very highly significant at *p≤0.001.*

As per the Table 1 the mean score of Study Skill Inventory was 136.3 in Pretest which had a markedly improved in Posttest to 173.9 which clearly signifies the improvement in Study Skills Inventory Score. The mean difference was 37.6, standard deviation was 30.0, standard error was 4.74, degree of freedom was 39 and "t" value was 7.93 which was very highly significant at the level *p≤0.001.*

Table 2: Mean, Mean Difference, Standard Deviation, and Standard Error, "t" test value of Pre-test and Post-test of Unit test Score. (N=40)

Score	Mean	MD	SD	SE	df	't' Value	table Value
Pre-test	4.5	13.2	73.28	0.53	39	24.90 S***	2.023
Post-test	17.7						

p≤0.05* Significant

p≤0.01** Highly Significant

p≤0.001 Very Highly Significant***

NS Non Significant S- Significant

Table 2 shows that there was significant difference between pre-test and post test score of Unit Test as "t" value is 24.90 at df 39 which was more than table value 2.023 and was very highly significant at *p≤0.001.*

As per the Table 8(b) the mean score of Unit Test was 4.5 in Pretest which had a markedly improved in Posttest to 17.7 which clearly signifies the improvement in Unit Test Score. The mean difference was 13.2, standard deviation was 73.38, standard error was 0.53, degree of freedom was 39 and "t" value was 24.90 which was very highly significant at the level *p≤0.001.*

DISCUSSION

Effectiveness of SQ3R method of study on study skills of nursing students

The present study shows that there is significant difference between pre-test and post test score of Study skills inventory as "t" value is 7.93 at df 39 which is more than table value 2.023 and is very highly significant at *p≤0.001.* The mean score of Study Skill Inventory was 136.3 in Pretest which had a markedly improved in Posttest to 173.9 which clearly signifies the improvement in Study Skills Inventory Score. The mean difference was 37.6, standard deviation was 30.0, standard error was 4.74, degree of freedom was 39 and "t" value was 7.93 which was very highly significant at the level *p≤0.001. **Hence H_1 was accepted***

The findings were supported by study conducted in 2007 by **Donna Lou E Neri**[5] on learning styles and study skills among nursing students in five Nursing colleges in Northern

Mindanao. Learning Style Inventory and Study Skills Inventory were used to gather data from the 300 respondents. The data revealed that the Nursing students have diverging learning style which was associated with valuing skills, helping others, and sense making. In terms of study skills, the Nursing students are good in note-taking, textbook reading, memory, test preparation, and concentration. However, they are weak in time-management skills.

Effectiveness of SQ3R on unit test scores of nursing students

The Statistical evaluation of the present study shows that there is significant difference between pre-test and post test score of Unit Test as "t" value was 24.90 at df 39 which is more than table vale 2.023 and is very highly significant at $p \leq 0.001$. The mean score of Unit Test was 4.5 in Pretest which had markedly improved in Posttest to 17.7 which clearly signifies the improvement in Unit Test Score. The mean difference was 13.2, standard deviation was 73.38, standard error was 0.53, degree of freedom was 39 and "t" value was 24.90 which is very highly significant at the level $p \leq 0.001$. Hence H_2 was accepted.

Another Study conducted by **Gibson in 2018 in Alabama**[6], on effects of SQ3R with Cooperative learning on reading progress of nursing students, supports the findings of the present study. The authors of this study found that out of 256 respondents 213 were markedly able to improve their reading skills.

CONCLUSION

Successful achievement in the academic arena requires self-awareness of one's individual learning strengths, weaknesses and learning styles. The goal of this research for students was to make them attain learning strategies and study skills that can be applied to lifelong learning and an enhancement of student independence. SQ3R does not only improve the study skills but also makes study innovative and easily comprehensible.

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Conflict of interest: None

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What does this study convey?

Many students do not study the way they should. Many have the learning problems either associated with environment or self. Overtime, students develop weak strategies to advocate their academic degradation such as making sketchy notes, learning in a piecemeal fashion and employing redundant methods like mugging up. These problems lay back the student's academic success resulting in other psychological issues too.

Who will use these findings?

The findings of this study will help professional teachers to identify the vulnerable groups and especially focus on their incompetency. It will enable the mental health nurse educators to provide focused, competent effective means of study methods to young budding nurse students since these novice nurses often hesitate to share their learning and study needs, it is imperative to address and attend the challenging needs of these students to make learning more effective

How can the findings be put into practice?

Nursing administrators in academics should take an initiative in creating policies or plans to provide education regarding use of the various methods of study in nursing colleges. Nursing administrators should ensure the use of these methods in their departments and should foster in-service education classes and special trainings for the students and nurses to promote the use of various methods of study.

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EFFECTIVENESS OF YOGA ON MOOD PATTERNS AMONG MENOPAUSAL WOMEN AT KONDAPUR, SANGAREDDY DIST., TELANGANA"

*** Dr Seema Yadav, ** N.P. Veena**

Abstract

Women are the vital set up and heart of the family. When women are tired, family functions would be affected. Women are facing lot many problems throughout their life cycle .One of the most common problems they are facing is menopause and hormonal changes during their late adulthood. The menopausal problems of women mostly make them tired and distressed. Therefore, they need health education regarding care during this period. There are about 470 million post-menopausal women worldwide, a number that is expected to increase to 1.2 billion by the year 2030. The overall health & wellbeing of mid-aged women has become a major public health concern around the world more than 80% of women experience physical or psychological distress in their lives leading to decrease in quality of life. This study was undertaken with the objectives to assess the mood pattern level among menopausal women, to demonstrate and help them to do yoga asanas, and to assess the effectiveness of yoga and also to find the association between post level of mood pattern among menopausal women with their selected demographic variables. The research approach adopted for this study was quantitative. Research design was pre-experimental one group pre and post intervention design. Study was conducted at Kondapur village, Sangareddy district. Structured questionnaire and menopause rating scale were the tools used in the study. A total of 60 menopausal women were selected by purposive sampling. Findings revealed that the comparison of pre and post mood pattern level experiencing in pre-test mean value was 24.75, Standard deviation 6.43, mean value of mood pattern level experiencing in post-test was 15.01, standard deviation 5.61. The calculated 't' value 35.204 was greater than the table value 1.671 at df= 59 which was significant at $p \leq 0.05$. This concluded that there was improvement in mood pattern level of menopausal women after the intervention.

Key Words: Yoga, Mood Patterns , Menopausal women

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Background

Menopause is the common biological event that occurs in the life time of a woman during mid-life. Menopause is not a disease and it is a physical transition and is natural. Menopause is a part of every woman's life.[1] A menopausal woman's wisdom is essential for survival, and the more we recognize this truth, the more menopauses will be celebrated in our culture. Menopause and post-menopausal health is emerging as an issue owing to rapid increased longevity in urban middle aged women, who are evolving as a homogenous group.[2]

A study conducted by the University of Pennsylvania, Philadelphia, suggests that many symptoms are attributed to menopause and the main ones are mood changes. As hormones fluctuate, it is perfectly normal to feel tense and irritable and cry easily. Good mental health is an important part of a woman's overall health.[3] It is important to remember that mental disorders are real medical illness that can't be willed or wished away. They affect both the mind and the body. The menopausal treatments actually focus on relieving the symptoms of menopause and in preventing any chronic condition.[4]

When a woman's hormonal balance begins to shift, she may have menstrual cycles with no ovulation called anovulatory cycles. She may begin to have pre-menopausal symptoms. Pre menopause is that stage in women's life when both physiological and emotional changes in their bodies are precipitated by hormonal deficiencies as a result of age. During pre menopause, oestrogen levels drop because the ovaries ability to produce enough oestrogen has weakened. Pre menopause usually occurs five years before menopause a period in women's life when the ovaries no longer produce oestrogen and therefore completely no further egg production occurs.

Because menopause is a very important period in women's life, informed knowledge of what to expect will go a long way to prepare a women's transition from pre menopause to menopause. It may also differ drastically due to the difference in the amount of the male hormone androgens that may be produced, which accounts for the divesting secondary male characteristics often exhibited by menopausal women.

For women in menopause, natural remedy such as yoga can help immensely in curing the menopausal symptoms. It also would make this a natural passage in life for women, a much more comfortable journey.[5] Yoga is a science of right living and it works when integrated in our daily life. It works on all aspects of the person: the physical, mental, emotional, psychic and spiritual. Yoga aims at bringing the different bodily functions into perfect coordination so that they work for the good of the whole body. Yoga is an integration and harmony between thoughts, words, and deeds, or integration between head, heart and hands.

To put it in a nut shell, menopausal symptoms are very high all over the world. Yoga asanas will help to reduce the menopausal symptoms. Yoga therapy will reduce the menopausal symptoms in an effective way.

Need of the Study & Literature Review:

Currently women in India in the 60 plus age group, number is 60 million that is about 6% of the population. Projection for the year 2025 shows that aging population would increase to about 12% of the total and roughly half of this population will be women in the elderly age group. According to Indian menopause society research, there are about 65 million Indian women over the age of 45. Average age of menopause is around 48 years but it strikes Indian women as young as 30-35 years. Mean age at menopause ranges in Indian women from 40 to 48years and in developed countries from 48 to 51 years. So, menopausal health demands higher priority in Indian scenario.[6]

In United States, African American women reported hot flashes most frequently (45.6%) followed by Hispanic (35.4%), Canscaren (31.2%), Chinese (20.5%) & Japanese (17.6%). In our study 66.3% of women reported hot flashes, almost similar results were reported from Sydney & Holland. According to this study frequency of psychological symptoms was 96% higher than reported frequency from China 52% & 90% respectively, but almost similar to frequencies reported from Thailand that are 72.3% & 98.3% respectively. In the United Kingdom, the mean age for the menopause is 50 years. Scottish survey reported that, in 6096 women aged 45-54 years found that 85% had experienced at least one of the psychological menopausal symptoms and 45% had one or more symptom.[5]

Health issues in India are always on a large scale and menopause is not an exception. As one of the world's most popular countries, India faces a variety of challenges dealing with menopause for several decades to come.[7] Indian population currently sits just over one billion and in 2020 Indian population will reach 165 million. More than 12% of the population will be above 60 years of age. Almost 50% of these will be women, a staggering population in menopausal and postmenopausal age. A total of 130 million menopausal Indian Public health systems both government and private are overburdened with problems of women in adolescent and childbearing age. As a result, it hardly addresses the specific health needs of older women, they are often neglected. Middle age women are burdened by physical, psychological and emotional issues. Physical and psychological disturbances are caused by a transition point in the women's life called menopause. Menopause refers to the end stage or a natural transition in a woman's reproductive life. For women in India the average age of menopause is 47.5 years of age.[8]

For women at midlife and beyond, yoga offers a primary form of menopause medicine that

can help them adjust to hormonal changes and cope with a wide range of symptoms. The spiritual science of yoga recognizes that equilibrium in the physical body helps to bring emotional balance and mental clarity.[9] An asana is a body posture, originally sitting for meditation including reclining, standing, inverted, twisting or balancing.[10]

The pranayama yogic session is generally defined as breath control. Pranayama utilizes breathing to influence the flow of prana in the energy channels of the entire body. Yoga is, instead, an adaptive discipline that can support the body through the myriad of biological changes; it can also support our minds and emotions, and allow us to come to a perspective on the inner processes that are happening.[11] Yoga's approach to health during menopause and beyond is based on the premise that the body should be allowed to function as efficiently, effectively and naturally as possible Yoga can have positive effects on menopausal women, and can help them to understand their body and mind better.[12]

During obstetrical and gynecological postings, the investigator observed women with menopausal symptoms. Through various research studies the investigator found that the yoga will reduce the menopausal symptoms. The investigator also observed that the women with menopause were also not aware of alternative medicine like yoga which has proved to reduce mood changes. Hence the researcher has undertaken this study.

Problem Statement

"A pre experimental study to assess the effectiveness of yoga on mood patterns among menopausal women at Kondapur, Sanga Reddy Dist., Telangana."

Objectives

- To assess the mood patterns among menopausal women.
- To assess the effectiveness of selected yoga asanas on mood pattern among menopausal women.
- To find the association between level of mood pattern among menopausal women with their selected demographic variables.

Hypotheses

All Hypotheses are tested at the level of $p \leq 0.05$.

H_1:-There is significant difference between the mood pattern level among menopausal women before and after intervention.

H_2:-There is significant association between level of mood pattern among menopausal women with selected demographic variables.

Methodology

Research Approach: To accomplish the objectives of the current study quantitative research approach is adopted.

Research Design: The research design adapted for the present study was pre-

experimental one group pre and post intervention design. This design provides a comparison between before and after the intervention. The investigator selected yoga as intervention.

PRE INTERVENTION	INTERVENTION	POST INTERVENTION
O_1	X	O_2

O_1 = Pre-Intervention

X = Yoga

O_2 =Post Intervention

Setting of the study: The study was conducted at Kondapur village, Dist. Sangareddy, State Telangana.

Sample size: The sample size for the present study was 60 Menopausal Women.

Sampling technique: Purposive sampling technique was used for selecting the sample.

Sampling criteria:

Inclusion criteria:

- Menopausal women who are available throughout the period of yoga sessions.
- Women who have attained menopause.
- Menopausal women who are willing to participate in the study.

Exclusion criteria:

- Menopausal women who have undergone abdominal surgery or have undergone abdominal hysterectomy in the past one year.
- Menopausal women who are suffering with diseases like hernia, with severe musculoskeletal problems like disc prolapse, acute inflammatory diseases, intestinal obstruction and coronary artery diseases.

Description of variables:

Independent variable: The independent variable in the present study is yoga asanas.

Dependent variable: The dependent variable in the present study is mood patterns among menopausal women.

Demographic variables: Which could influence the effect of yoga on mood patterns of menopausal women are; age, religion, education, occupation, Marital status, income, age of menopause, and any previous knowledge about yoga.

Development and description of tool:

The questionnaire has two parts:

Part- A: Deals with demographic variables which include age, Religion, education, occupation, marital status, income, age of menopause, previous knowledge about yoga.

Part B: Deals with the assessment of mood pattern level before and after practice of yoga among menopausal women. Standardized MENOPAUSE RATING SCALE (MRS) given by Lothar AJ Heinemann, Peter Potthoff, and

Hermann PG Schneider's, has been used.

Scoring interpretation: According to the menopause rating scale

Category	Score
None	Score of (0)
Mild symptoms	Score of 1-11
Moderate symptoms	Score of 12-22
Severe symptoms	Score of 23-33
Very severe symptoms	Score of 34-44

Validity of the tool: The tool was submitted to eight experts in the field of obstetrical and gynecological nursing. Their valuable suggestions were incorporated, and tool was modified accordingly.

Reliability of the tool: Internal consistency measured with Cronbach's Alpha. The consistency coefficients range between 0.6 and 0.9 given by author.

Data collection procedure: In order to collect data for the study, the investigator obtained the written permission from the medical officer of primary health centre, Kondapur, Sangareddy. Menopausal women were informed about the purpose, nature, duration of the study and their consent was taken. The menopausal women who were at the time of data collection and fulfilling the criteria were selected through purposive sampling technique. Total 60 women were taken in the study. They were divided into two batches, each batch had 30 women. Menopausal women were given yoga training for 3 weeks, yoga asanas, Trikonasana, Bhadrasana, Bhujangasans, Utkatasana, Paschimottanasana, ardha-Matsyendrasana, Vajrasans, ardha and uttanasana were taught by investigator after taking yoga certification course under study and after demonstrating all the asanas, all the women were evaluated through re-demonstration to ensure they have learnt asanas appropriately. Pre and post intervention mood pattern were assessed by using menopausal rating scale.

Findings

The findings of the study were grouped and analyzed under the following sections.

Section I: **Assessment of the Demographical variables among menopausal women**

Majority of them 22(36.7%) were in the group of 56-60 years, only 10(16.7%) were in age group of 45-50 years. Regarding religion, majority of them 26(43.3%) were Hindus and only 10 (16.7%) were other group. About their educational background, as many as 16(26.7%) were from non formal education background, 16(26.7%) had undergone secondary school, 15(25%) had primary schooling, and only13 (22.7%) had above Intermediate education. Majority of them 21 (35%) were homemakers, only 8(13.3%) were from other group, 16 (26,7%) were employed as daily wagers,15 (25%) were doing farming. Majority of them 35(58.3%) were married, only 6 (10%)were unmarried,10 (16.7%) were

divorced and 9 (15%) were widowed. As far as monthly family income was concerned, majority of them 29(48.3%) were having Rs.5001-10000, only 5(8.3%) were getting income of above Rs, 15000, 16 (26.7%) were getting income of Rs,5000, and 10 (16.7%) were getting monthly income of Rs,10001-15000. Regarding Menopause age, most of them i.e 20 (33.3%) were in age group of 45-49 Years when they attained menopause, 7(11.7%) had reached the age of 40-44 years of age,18(30%) of them had their menopause at 50-54 years and 15(25%) were above 55 years of age when they attained menopause. Majority of them 36(60%) did not have any information about yoga and only 24 (40%) knew about Yoga.

Section II: Assessment of pre and post intervention mood pattern level among menopausal women.

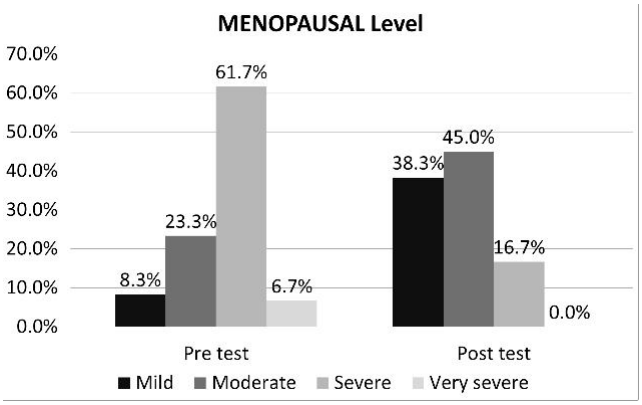

Figure No:1: Frequency and percentage distribution of pre and post intervention mood pattern level among menopausal women.

Figure No. 1 shows that out of 60 menopausal women majority of them 37(61.7%) were experiencing severe symptoms, only 4(6.7%) were experiencing very severe symptoms. 14(23.3%) were experiencing moderate symptoms and 5(8.3%) were experiencing mild symptoms. Whereas out of 60 menopausal women, post intervention majority of them 27(45.0%) were experiencing moderate symptoms, 23(38.3%) were experiencing mild symptoms and 10(16.7%) were experiencing severe symptoms.

Section III: Effectiveness of yoga on mood pattern level among menopausal women.

Table1: Frequency and percentage distribution of pre intervention mood pattern level among menopausal women. N=60

	Mean	SD	Paired 't' test	Table 't' values
Pre test	24.75	6.43	24.22	t=1.671 Df=59 P≤0.05
Post test	15.01	5.61		

The above table shows that mean value of mood patterns experienced in pre intervention level was 24.75 standard deviation 6.43 than the mean value of mood pattern experiencing post level for which mean value was 15.01 standard deviation 5.61 the calculated t value 24.22 greater than the table value1.671 at df= 59 which was significant at p≤0.05.Therefore, $H_1$was accepted.

Section IV: Association between post mood

pattern level with selected demographic variables.

There was no significant association found between demographic variables like age, Religion, education, occupation, Marital status, income, age of menopause, previous knowledge about yoga, and mood patterns. Hence, $H_2$was rejected.

Discussion

Demographic Variables: In this study majority of menopausal women 22 (36.7%) were in the group of 56-60 years. **Khatoon F, Sinha P, Shahid S, Gupta U,** conducted a study on assessment of menopausal symptoms using modified menopause rating scale (MRS) in women of Northern India, also found similar finding that The mean age at menopause in their study was 50.33 years+5.26 years.[13]

Assessment of pre intervention mood pattern level among menopausal women:

Results of the study revealed that in pre-test, majority of them 37(61.7%) were experiencing severe symptoms; only 4(6.7%) were experiencing very severe symptoms. 14(23.3%) were experiencing moderate symptoms and 5(8.3%) were experiencing mild symptoms**. Sagar A Borker P P Venugopalan , Shruthi N Bhat,** conducted A Study of menopausal symptoms, and perceptions about menopause among women at a rural community in Kerala, The study was conducted among 106 postmenopausal women staying more than 6 months at Anjarakandy with the help of pretested questionnaire administered by a trained social worker from January to October 2009. Before that a pilot study was conducted and required sample size of 100 was calculated. Random sampling of houses was done. Prevalence of symptoms among women were emotional problems (crying spells, depression, irritability) 90.7%, headache 72.9%, lethargy 65.4%, dysuria 58.9%, forgetfulness 57%, musculoskeletal problems (joint pain, muscle pain) 53.3%, sexual problems (decreased libido, dyspareunia) 31.8%, genital problems (itching, vaginal dryness) 9.3%, and changes in voice 8.4%. Only 22.4% of women knew the correct cause of menopause.[14]

Effectiveness of yoga on mood pattern level among menopausal women

In the present study, in post-test, majority of them 27(45%) were experiencing moderate symptoms, none of them 0(0%) were experiencing very severe symptoms and 23(38.3%) were experiencing mild symptoms and 10(16.7%) were experiencing severe symptoms. Similarly **Anil K. Agarwal, Nirmala Kiron, Rajesh Gupta, Aditi Sengar, Preeti Gupta** Conducted A study on assessment of menopausal symptoms and coping strategies among middle age women of North Central India. The mean age of menopause was 49.8 years (±4.9) (range 43 - 57 years). The most prevalent symptoms reported were joint and muscular discomfort (70.6%); physical and

mental exhaustion (61.3%); and sleeping problems (59.3%). Followed by symptoms of anxiety (48.6%); irritability (45.3%) hot flushes and sweating (38.6; dryness of vagina (37.9%); depressive mood (38.0%). Other complaints noted were incontinence/ Frequency of urine (27.3 and heart discomfort (23.3%). Perimenopausal women (47.2%) experienced higher prevalence of somatic and psychological symptoms compared to premenopausal (n=15.6) and postmenopausal (37.2%) women. However urogenital symptoms found more in postmenopausal group of women. There is a strong significant association between the menopausal symptoms and coping strategies adopted by the menopausal women. relief of menopausal symptoms and beneficial for alleviating specific menopausal symptoms. [15]

There are many ways to combat with menopausal symptoms. The common ones are hormonal therapy, exercise sessions, yoga and meditation. Yogic sessions help the women to lighten the mood and their day. Among the many benefits that set yoga apart from the other forms of physical exercise is the effect yoga postures and breathing practice have not only on the muscles and bones of one's body, but also on organs and glands[16]

Present finding is supported by a study conducted by **Tsengws et al (2012)** a randomized control study to assess the efficacy of an integrated approach of yoga therapy (IAYT) on cognitive abilities conducted in the fourteen centres of Swami Vivekananda Yoga Research Foundation Bangalore among 120 menopausal women between 40-55years .A module of breathing practices ,sun salutation and cyclic meditation was practised by the yoga group whereas the control group practised a set of physical exercises (1hour/day,5day/week)for 8 weeks .The Wilcoxon test showed significant reduction in hot flashes , night sweats ,and sleep disturbances in yoga group than control group and six letter cancellation test (SLCT)and Punit gavel intelligence memory scale showed significant improvement in eight of 10 subset in yoga group and six of subsets in control group." Mean value of mood patterns experiencing in pre intervention level was 24.75 standard deviation 6.43 then the mean value of mood pattern experiencing post level mean value was 15.01 standard deviation 5.61 the calculated 't' value 24.22 greater than the table value 1.671 at df= 59. Which was significant at $p \leq 0.05$.[17]

The findings of the study revealed that the mood pattern level were reduced after the practice of yoga. That was proved by comparing the pre and post-test values. Thus it was concluded that yoga was more effective among menopausal women and the formulated hypothesis was accepted. The findings also indicated that there was no significant association between mood pattern and with their selected demographic variables.

Conclusion

The present study was conducted to assess the effectiveness of yoga among menopausal women. Menopause is the common biological event that occurs in the life time of a woman during middle life. Menopause is not a disease and it is a physical transition and is natural. Menopause is a part of every woman's life.

Yoga is an adaptive discipline that can support the body through the myriad of biological changes; it can also support our minds and emotions, and allow us to come to a perspective on the inner processes that are happening. Yoga's approach to health during menopause and beyond is based on the premise that the body should be allowed to function as efficiently, effectively and naturally as possible Yoga can have positive effects. Yoga training must be provided to menopausal women to combat consequences of this biological process.

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What does the study convey?

This study conveys that all women have some or other menopausal symptoms and Yoga Practice helps reduce these symptoms.

How can the findings be put into practice?

Findings of the study can be utilized by nursing administrators, nursing teachers/ educators and nursing students so that, they motivate and assist individuals in making health behavior changes through improving behaviors and providing self management tools. Results of the study revealed that the mild to severe menopausal symptoms were found in old aged women, which reduced with yoga practice . Hence the study emphasized a need for teaching selected yoga asanas to menopausal women.

Who will use these findings?

Lack of knowledge on management of menopausal symptoms among menopausal women may be taken into consideration by all community health nurses so that they can help menopausal women in coping with this natural biological change.

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"EFFECTIVENESS OF INFORMATION BOOKLET ON KNOWLEDGE REGARDING PREVENTIVE MEASURES FOR COMPLICATIONS OF HYPERTENSION AMONG NEWLY DIAGNOSED HYPERTENSIVE PATIENTS"

*** Diksha Gehlot, ** Sanjay Nagda, *** Dharmesh Chaturvedi**

Abstract

Hypertension is termed as silent killer because it cannot be detected in early stage without measuring blood pressure. According to WHO, an estimated 1.13 billion people worldwide have hypertension, most (two-thirds) living in low- and middle-income countries. Therefore, the present study was conducted with the intention to assess the effectiveness of information booklet on knowledge regarding measures for prevention of complications of hypertension among newly diagnosed hypertensive patients in selected hospitals of Udaipur, Rajasthan. Pre experimental research design was selected to conduct the study. 100 newly diagnosed hypertensive patients were selected for this study by using purposive sampling technique. Results revealed that around 83% of newly diagnosed hypertensive patients had inadequate knowledge score in pre-test. Whereas in post-test, approximately 80% had adequate knowledge score. The Paired't' test value was 35.55, which was greater than table value at .05 level of significance. This shows that there was significant difference between the pre-test and post-test level of knowledge regarding prevention of complications of hypertension among newly diagnosed hypertensive patients. No significant association was found between the pre-test knowledge score regarding prevention of complications of hypertension demographic variables except educational status. Study concluded a strong need for proper health education in enhancing knowledge regarding prevention of complications due to hypertension among newly diagnosed hypertensive patients.

Background

Hypertension ranks among the most common chronic medical condition characterized by a persistent elevation in the arterial pressure. The current definition of hypertension (HTN) is systolic blood pressure (SBP) values of 130mmHg or more and/or diastolic blood pressure (DBP) more than 80 mmHg. The high prevalence of hypertension is consistent across all socio-economic and income strata, and the prevalence rises with age.[1]

If the individuals have high blood pressure it

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means that the blood is exerting too much force on arteries and making the heart function more difficult. The heart has powerful and co-efficient muscle, but if it is forced to work too hard for longtime or too slow, it can enlarge or fail, causing heart attacks, strokes, aneurysms and death.[2]

According to WHO, hypertension is a major cause of premature death worldwide and it significantly increases the risk for heart, brain, kidney and other diseases. An estimated 1.13 billion people worldwide have hypertension, most (two-thirds) living in low- and middle-income countries. Fewer than 1 in 5 people with hypertension have the problem under control. One of the global targets for non-communicable diseases is to reduce the prevalence of hypertension by 25% by 2025.[3]

Need of the study & literature review:

In India, hypertension is the leading NCD risk and estimated to be attributable for nearly 10 per cent of all deaths. Adult hypertension prevalence has risen dramatically over the past three decades from 5 per cent to between 20-40 per cent in urban areas and 12-17 per cent in rural areas. The number of hypertensive individuals is anticipated to nearly double from 118 million in 2000 to 213 million by 2025.[4]

National family health Survey (NFHS-4) (2015-16) revealed that as per guidelines set by the Government of India, 48 million Indians are estimated to have raised blood pressure; if the American College of Cardiology/American Heart Association guidelines are followed, this number has increased to 253 million.[5]

Findings from a study conducted by **Rajkumar E (2020)** revealed that there was no significant relationship between risk factors index and knowledge of hypertension. It was also observed that factors such as smoking, fruit and vegetable consumption, body mass index, and age group were significantly associated with the odds of hypertension.[6]

In this background and by clinical experience; the researchers were encouraged to undertake a study to design an information booklet which would be useful and informative to the new diagnosed hypertensive patients in prevention of complications from hypertension.

Problem Statement

A study to assess effectiveness of information booklet on knowledge regarding 'preventive measures for complications of hypertension' among newly diagnosed hypertensive patients in selected hospitals at Udaipur, Rajasthan.

Objectives

- To assess the pre test level of knowledge regarding preventive measures for complications of hypertension among newly diagnosed hypertensive patients.
- To develop, administer and evaluate the

effectiveness of Information booklet on knowledge regarding preventive measures for complications of hypertension among newly diagnosed hypertensive patients.

- To assess the post test level of knowledge regarding preventive measures for complications of hypertension among newly diagnosed hypertensive patients.
- To find out the association between the pretest level of knowledge preventive measures for complications of hypertension among newly diagnosed hypertensive patients with their selected demographic variables.

Hypotheses

RH_1- There is significant difference between pretest and posttest level of the knowledge regarding preventive measures for complications of hypertension among newly diagnosed hypertensive patients at p □0.05 level of significance.

RH_2- There is significant association between the knowledge regarding preventive measures for complications of hypertension among newly diagnosed hypertensive patients with their selected demographic variables at p □0.05 level of significance.

Methodology

Research design: A quantitative approach, pre-experimental research design was used in the present study**.**

Setting: The study was conducted at Pacific Medical College and hospital Udaipur, Rajasthan.

Population: It consisted of all newly diagnosed hypertensive patients residing in Udaipur district, Rajasthan.

Sampling technique: Non probability purposive sampling technique was used to select sample size from the accessible population.

Sample size: Sample comprised of 100 newly diagnosed hypertensive patients who were taking treatment at Pacific Medical College and hospital in Udaipur Rajasthan.

Tool: Data collection tool used is a self structured questionnaire which has two sections:

Section I

It comprised of demographic variables such as age, sex, educational status, occupation, income, religion, dietary pattern, type of family, family history of disease and information sources.

Section II

It comprised of semi structured questionnaire to assess knowledge regarding preventive measures for complications of hypertension among hypertensive patients. It was edited as per the blueprint and different content area. It

consisted of 30 multiple choices question.

For the structured knowledge questionnaire, A score of "one" was allotted to each correct response "zero" was rewarded for the wrong response. Thus there were 30 maximum obtainable scores. The level of knowledge was graded based on percentage of scores obtained. The interpretation of the total score, Inadequate knowledge level: less than 50%, Moderately adequate knowledge level: 50%-75% and Adequate knowledge level: greater than 75%.

Pilot Study: The pilot study was conducted with 10 newly diagnosed hypertensive patients from Dr. Ramakant Mali clinic and hospital Udaipur. The study was found to be feasible in terms of availability of samples, cooperation of the people, time, distance, money and material. These samples were not included in the main study.

Data Collection Procedure: Formal administrative, permission was obtained from the concerned authorities**.** Investigator introduced herself to the participants and established rapport with them. Investigator explained the nature and purpose of the study to the newly diagnosed hypertensive patients. Consent was obtained from the newly diagnosed hypertensive patients in the study before the data collection. The period of data collection was 4 weeks from 03.02.2020 to 29.02.2020.

Findings

Section I: Socio Demographic Data

Among 100 newly diagnosed hypertensive patients, 75 (75%) were in the age group of 51-60 yrs, 15 (15%) were in the age group of 41-50 years. 88 (88%) subjects were male and 12 (12%) were female. Majority of subjects 72 (72%) were Hindus. 80 (80%) subjects had primary level of education only. 35 (35%) subjects had self business, 21 (21%) were in private sector jobs, 15 (15%) were unemployed. Regarding monthly family income, 37 (37%) subject's monthly family income was in between 15001 to 20000 rupees, 25 (25%) subject's monthly family income was in between 8001 to 15000 rupees. 68 (68%) subjects were vegetarian and 32 (32%) were non vegetarian. 46 (46%) subjects were living in nuclear family, 44 (44%) were living with extended family. According to family history of hypertension 86 (86%) subjects had no family history of hypertension. 69 (69%) of subjects had no source of information, 17 (17%) of the subjects got information through mass media, 08 (8%) through health professional.

Section II: Assessment of pretest and posttest Knowledge score

Figure 1 depicts that, in pre-test majority of subjects 83 (83%) had inadequate knowledge level and 17 (17%) had moderately adequate knowledge level. But in post-test majority of

subjects 80 (80%) of newly diagnosed hypertensive patients had adequate knowledge level and 20 (20%) had moderately adequate knowledge level.

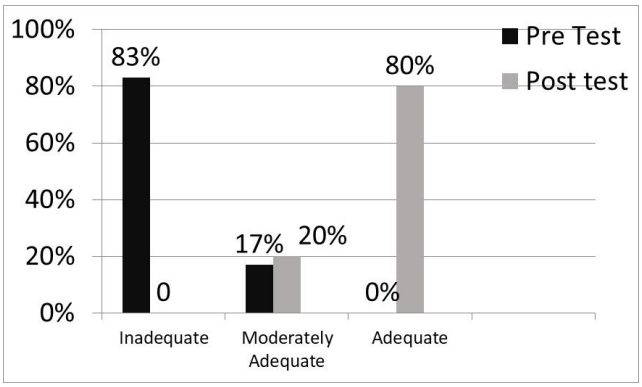

Figure-1 Pre-test and post-test score of knowledge level regarding preventive measures for complications of hypertension among newly diagnosed hypertensive patients.

Section III: Comparison of pre-test and post-test score of knowledge

Table 1 shows that mean pre test score is 11.85 and mean post test score is 23.54, mean difference is 11.69. It shows that there is significant difference between the pre test and post test level of knowledge regarding prevention of complications of hypertension among newly diagnosed hypertensive patients. The effectiveness of information booklet was tested by using paired 't' test. the Paired 't' test value was 35.55 was greater than table value (1.9842 at df-99) at .05 level of significance. Hence hypothesis H_1 was accepted

Table-1 Comparison of pre-test and post-test score of knowledge among subjects (n=100)

Observation	Max. Score	Mean	SD	Mean Diff.	Paired 't' value
Pre-test	30	11.85	2.83	11.69	35.55
Post-test	30	23.54	3.16		

Section IV: Association between pre-test score of knowledge with the selected demographic variables

Chi-square test was calculated to find out the association between pre-test score of knowledge and practice regarding prevention of complications of hypertension among newly diagnosed hypertensive patients with demographic variables. Study result found that no significant association was found between the pre-test knowledge score regarding prevention of complications of hypertension among newly diagnosed hypertensive patients with other demographic variables like age, gender, education, occupation, monthly income, place of residence, food pattern, type of family, family history of hypertension and information source of illness. While there was significant association between pre test knowledge score with **education (Chi-square value 19.294**)** of the newly diagnosed hypertensive patients regarding prevention of complications of hypertension

Discussion

Section I: Socio Demographic Data

Present study revealed that 14 (14%) had family history of hypertension. Our study findings supported by a study carried out by **Bhadoria et al., 2014**[7] in central India to examine prevalence of hypertension which was 17%, with 21.4% of the urban residents and 14.8% of the rural residents. **Anchala et al (2014)**[8] also presented similar findings in a systematic review and meta-analysis of the prevalence, awareness, and control of hypertension among Indian patients.

Section II: Assessment of pretest and posttest Knowledge score

Our study found that 83% subjects had inadequate knowledge score and 17% had moderate adequate knowledge score. Mean pretest knowledge score was 11.85 and SD was 2.83. Similar results found in a cross-sectional study conducted by **Buang N. et al (2019)**[9]**, Dhakal M. et al (2017)**[10] and **Kilic MU. et al (2016)**[11].

Section III: Comparison of pre-test and post-test score of knowledge

After educational intervention in the form of information booklet on prevention of complications from hypertension among newly diagnosed hypertensive patients, we found adequate improvement in knowledge level of our study subjects. Our study found that 80% subjects had adequate knowledge score and 20% had moderate adequate knowledge score. Mean posttest knowledge score was 23.54 and SD was 3.16. Pre-test and post-test knowledge score Paired't' test value was 35.55 which was greater than table value at .05 level of significance. Hence our findings were statistically significant. Similar findings stated by a study conducted by **Ozoemena EL et al (2019)**[12] with the objective to assess the effectiveness of a health education intervention in improving hypertension (HT) knowledge, prevention and self-care practices. **Suresh R (2018)**[13] also established effectiveness of planned teaching on knowledge of hypertension among staff nurses. **Lu C. et al (2015)**[14] also found effectiveness of community-based health education strategies in the management of hypertensive patients with low socioeconomic status. **M. Girija, N. Kokilavani (2014)**[15] also found effectiveness of structured teaching programme on knowledge among hypertensive patients. **Santosh K.V.(2012)**[16] also found the effectiveness of individual teaching programme on knowledge and practice regarding lifestyle modification among patients with hypertension in selected urban community.

Section IV: Association between pre-test score of knowledge with the selected demographic variables

Our study found significant association

between pre test knowledge score with education **(Chi-square value 19.294**)** of the newly diagnosed hypertensive patients regarding prevention of complications of hypertension while other socio demographic variables like age, gender, occupation, monthly income, place of residence, food pattern, type of family, family history of hypertension and information source of illness were not associated with pre pest knowledge score. Our findings supported by a study conducted by **Samal Doris et al (2007)**[17] in which educational level was significantly associated with knowledge of possible consequences of hypertension.

Conclusion

Study identified that the most of the newly diagnosed hypertensive patients had below average knowledge regarding prevention of complications of hypertension in pre test which was increased after educational intervention in the form of information booklet, thus the study suggests the need for regular continue education programs hypertensive patients to prevention of complications of hypertension.

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Conflict of Interest: None

Source of Funding: Self

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What does this study convey?

Hypertension is termed as silent killer because it cannot be detected in early stage without measuring blood pressure, Most (two-thirds) of the hypertensive's living in low- and middle-income countries. Many newly diagnosed hypertensive patients are vulnerable to the complications of hypertension.

Who will use these findings?

The findings of this study will help professionals to identify the vulnerable groups and especially focus on their knowledge gap. Health care providers working in community set up can reinforce the importance of preventive measures for complications of hypertension in both newly diagnosed hypertensive patients and chronic patients of hypertension with no complications, family members and other health care team members

How can the findings be put into practice?

Nurse administrators should arrange in-service education to update their subordinate's knowledge regarding preventive measures for complications of hypertension in hypertensive patients. Nurses working in clinical area can assess and counsel their patients about the importance of prevention of complications in hypertension

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EFFECT OF ACUPRESSURE THERAPY ON LOW BACK PAIN AMONG STAFF NURSES

*** Punam Dungdung ** Jini Varghese *** Shweta Pattnaik**

Abstract

Acupressure therapy is a complementary and alternative medicine based on the use of deep massage and applied pressure to specific pressure points and energy meridians located on specific parts of the body. The acupressure point urinary bladder UB(60), also called sciatica point located in the depression between the tip of the external malleolus and the Achilles tendon, is very effective in reducing the level of low back pain with lasting impact. A Quantitative approach with quasi experimental non randomized control group design was undertaken to assess the effectiveness of Acupressure Therapy on low back pain among staff nurses in selected hospitals of Indore, M.P. A total of 40 samples were selected as participants through non-randomized convenient sampling technique. Samples were assigned non-randomly into control (20) and experimental group (20). Visual Analogue scale for pain assessment was used as tool for assessing the severity of low back pain among staff nurses. The study results showed that in the Pre-test of control group 2(10%) of samples had severe pain, 11(55%) moderate pain and 7(35%) had mild pain. In experimental group 1(5%) sample had severe low back pain, 13(65%) moderate pain and 6(30%) were in the mild pain category. Post-test mean score of control and experimental group were 4.6 & 1.15 respectively, with a mean difference of 3.45 & SD 1.11, SE 0.34 at df 38. The calculated "t" value is 10.14 was greater than the Table value of 2.20, which was statistically significant at the level p□0.05. This shows that the Acupressure Therapy was highly effective in reducing low back pain among staff nurses of experimental group. The level of low back pain was associated with increasing age, working hours, treatment and methods of management for low back pain. Based on these findings it was necessary to improve the health status and well-being of staff nurses with low back pain through administration of appropriate, cost effective & non-invasive Therapy.

BACKGROUND

National Institute of neurological disorders and stroke (2019) stated that we can put a man on the moon but low back pain is just as miserable as ever and more costly to society than ever. Low back pain (LBP) is one of the

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most serious health Problem of tremendous medical and socioeconomic dimension and a major cause of disability. Majority of the low back pain is mechanical in nature. It is the most common cause of job related disability and a leading cause to missed work days

National Centre for Complimentary and Integrative Health, Bethesda, Maryland, Sept (2017) stated that each year, up to a quarter of U.S adults experience low-back pain. Most people have significant low back-pain at least once in their lives: often the cause is unknown. For many people, it lasts only a few weeks, no matter what treatment is used. But for others, the pain can become chronic and even debilitating. Low back pain is a challenging condition to diagnose, treat and study.

In traditional Chinese medicine, the use of acupressure is to alleviate symptoms, support the healing process, promote relaxation, and improve overall health. Systematic reviews based on randomized controlled trials concluded that acupressure has been shown to be effective for relieving a variety of symptoms. The effects of acupressure-like those of acupuncture, with which it shares a theoretical framework--cannot always be explained in terms of Western anatomical and physiologic concepts, but this non-invasive practice involves minimal risk, can be easily integrated into nursing practice, and has been shown to be effective in treating nausea as well as low back, neck, labour, and menstrual pain. **Lee EJ & Frazier SK. (2011)**

NEED OF THE STUDY & LITERATURE REVIEW

Low back pain is a very common health problem worldwide and a major cause of disability - affecting performance at work and general well-being. Back pain is not a disease but a constellation of symptoms. In most cases, the origins remain unknown. Low back pain affects people of all ages and is a very frequent reason for medical consultations. From children to the elderly, Low back pain affects people of all ages and is a very frequent reason for medical consultations. Most often the cause is unknown. It is the leading cause of activity limitation and work absence throughout much of the world, imposing a high economic burden on individuals, families, communities, industry, and governments. Alternative treatments include physical therapy, rehabilitation and spinal manipulation. Disc surgery remains the last option when all other strategies have failed, but the outcomes are disappointing**. (WHO, 2010)**

The nurses who work for protection, development and improvement of health in cases of health problems for individuals and families spend more time with the patients when compared with other health professionals and provide direct care for the patients. Therefore it is known that the frequency of low back pain is higher in nurses

when compared with other health professionals and rest of the society. Low back pain (LBP) is a highly prevalent health problem responsible for serious sufferings and disability than any other health condition across the world. **Ipek Kose T. & Gursel O. (2015)**

Badley EM, Rasooly I (2010) concluded that Low back pain is the second leading cause of work absenteeism leading to productivity loss (after respiratory tract complaints). The life time prevalence of back pain exceeds 70%. In India; several kinds of works especially manual workers are at a higher risk to develop mechanical back pain. 50-80% of adults experience low back pain at some point in their life. Adults working age are the most vulnerable group of LBP, which is ranked as the highest cause of disability than any other condition globally.

LBP also affects the economy of the countries adversely due to labour loss of nurses, reduction in work efficiency and other financial costs. **Sharma, Shrestha & Jensen (2016)**

Despite this fact, that the prevalence rate of low back pain is very high among general population including staff nurses in our Country, the studies conducted in this area are very limited. Based on this, a need was felt to explore more about low back pain and measures to reduce low back pain level among nurses. The present study aimed to assess the effectiveness of Acupressure Therapy on low back pain among staff nurses working at selected hospitals of Indore.

PROBLEM STATEMENT

A quasi experimental study to assess the effectiveness of acupressure Therapy on low back pain among staff nurses in selected hospitals of Indore in the year 2018-2019.

OBJECTIVES

- To assess the level of low back pain among staff nurses measured by visual analogue scale.
- To assess pre-test level of low back pain of experimental and control group of staff nurses with low back pain.
- To find out the effectiveness of acupressure therapy on low back pain among experimental group of staff nurses.
- To find out the association between selected socio-demographic variables and pre-interventional level of low back pain of control and experimental group.
- To find out the association between selected clinical variables and pre-interventional level of low back pain of control and experimental group.
- To compare the difference in low back pain level between control and experimental group after administration of acupressure therapy.

HYPOTHESES

All hypotheses are tested at the level of p□0.05

H0: There is no significant difference in the level of low back pain among experimental group of staff nurses after administration of acupressure therapy.

H1: There is a significant difference in the level of low back pain among experimental group of staff nurses after administration of acupressure therapy.

H02: There is no significant difference in the level of low back pain among experimental group and control group of staff nurses after administration of acupressure therapy.

H2: There is a significant difference in the level of low back pain among experimental group and control group of staff nurses after administration of acupressure therapy.

H03: There is no significant association between the selected socio-demographical variables and the level of low back pain among experimental and control group of staff nurses.

H3: There is a significant association between the selected socio-demographical variables and the level of low back pain among experimental and control group of staff nurses.

H04: There is no significant association between the selected clinical variables and the level of low back pain among experimental and control group of staff nurses.

H4: There is a significant association between the selected clinical variables and the level of low back pain among experimental and control group of staff nurses.

METHODOLOGY

Research Design: Quasi experimental non randomized control group design

Population: Staff nurses with low back pain

Sampling Technique: Non probability Convenient Sampling

Sample Size: 40 samples (20 in control and 20 in experimental group)

Setting: Choithram Hospital & Research Centre & Shree Aurobindo Hospital, Indore

Tool: The tool used in this study contained 3 sections.

Section A: Socio-demographic Data

This section consists of a questionnaire to collect which consists of 9 items for obtaining information about selected factors such as age, gender, height, weight, and educational status, and marital status, types of family and hours of sleep.

Section B: Self- structured questionnaire

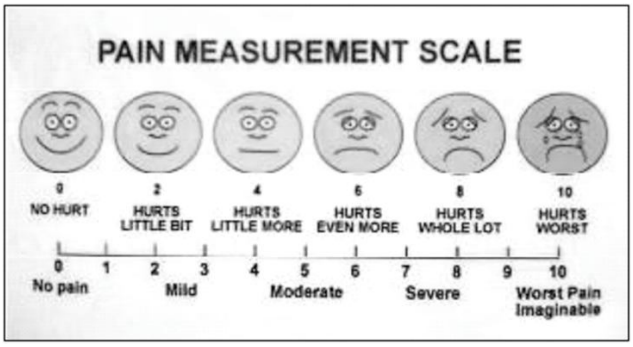
This section consists of a questionnaire to collect which consists of 24 items for obtaining information about selected factors such as working place, working hours,

working experience, nurse patient ratio, break time, stress, prolonged standing, lifting heavy patients/loads, weekly day off, low back pain frequency and intensity, characteristics of back pain, effect of low back pain, pain in other area than back, consultation with doctor for back pain, diagnostic investigation to rule out low back pain, medication used to relieve low back pain, therapy being taken at present for low back pain, comorbidity, exercise, type of exercise and management method used for low back pain.

Section C: Visual Analogue pain scales

Instructions: Researcher will ask the patient with low back pain to rate his/ her intensity of pain between 0-10.

Pain score measurement before and after the acupressure therapy.



PILOT STUDY: Pilot study was conducted in Suyash Hospital & Gurjar Hospital Indore. The samples taken for pilot study were not included in the main study. The analysis of the pilot study revealed that objectives of the study could be fulfilled. The study was found to be feasible and practicable.

Data Collection: The procedure for data collection was divided into pre-procedure, procedure and follow - up.

Pre-procedure: Permission was taken from the administrative authority and ethical committee. Selection of the samples as per the inclusion criteria of the study was done**.** Procedure was explained and consent was taken from all samples.

Procedure: Before intervention all staff nurses were screened through Visual Analogue Scale for low back pain. Samples those who were found to have low back pain were assigned to control and experimental group by randomized sampling technique. The experimental was given acupressure therapy for 2 weeks, daily for 1st week & alternative day for 2nd week. There were a total of 9 sessions (at Acupressure point UB 60), where acupressure therapy was administered by researcher herself. Each session lasted for 5 minutes. The control group received no treatment. After intervention was complete a pamphlet explaining the acupressure point for reducing back pain was given to staff nurses of both the experimental and control group and after post-test for both the group, acupressure therapy was taught to the control group also.

ACUPRESSSURE POINT: **Urinary Bladder 60 (UB 60)**


Fig No.1 Acupressure point: Urinary Bladder 60

Urinary Bladder 60 (UB 60): Acupressure Point Urinary Bladder 60 called Kunlun in Chinese is located in the depression between the tip of the external malleolus and the Achilles tendon

Follow-up: The samples of the two groups were explained and trained about Acupressure therapy to reduce the severity of low back pain.

FINDINGS

Section I: Socio-demographic variables

In experimental group, 75% samples were female and 25% male. Majority of the samples 16(80%) were in the category of 21-25 years age group. For height, 8(40%) of the samples were in the category of height 153-164 cm of height and 7(35%) samples were in each category of 41-52 kg and 53-64 kg of weight. 13(65%) had BMI of 18.5- 24.9, regarding educational status, 13(65%) of the samples had pursued educational qualification of B.Sc. in Nursing. majority 16(80%) of the samples were unmarried and 13(65%) belonged to nuclear family. 11(55%) of the samples take 6-8 hours of sleep.In control group, majority 13(65%) of the samples were female and 7(35%) were male, (35%) were in the age group of 21-25 years. For height, 8(40%) were in the category of height 153- 164 cm of height and 8(40%) were in the category of weight between 53-64 kg and 15(75%) samples had BMI of 18.5- 24.9. 13(65%) of the samples had pursued educational qualification of B.Sc. in Nursing. Majority 12(60%) were married more than half of the samples 16(80%) were from nuclear family. Half of the samples 10(50%) of the samples take 4-6 hours of sleep.

Section II: Clinical variables

In the experimental group more than half 11(55%) of the sample were posted in ICU, had 15(75%) of the samples had 8 hours of work shift and 48 total hours of work per week. 12(60%) Work experience was between 1-3 years. Had more than half 12(60%) samples had nurse patient ratio of 1:1-1:3.and 8(40%) samples get 11-20 min of break. It was identified that 12 (60%) of the samples had work related stress. There were 8(40%) Prolonged standing of 5-6 hours in a shift duration and 13(65%) of the samples do lifting heavy patients/loads always. All the samples 20(100%) get weekly day off. The frequency of low back pain was weekly in 10(50%) samples and 10(50%) of continuous back pain. The samples 11(55%) were having low back pain since 1-2 years. The characteristics of low back pain was dull for 8(40%) of the samples. Majority of the samples had restriction of activity as effect of low back pain. All the samples had no pain in other area than back.16 (80%) samples do not take

medications to relieve low back pain and all the samples 20(100%) were not seeking any therapy for low back pain at the time of data collection and were not suffering from any other medical condition. 11(55%) never do exercises and 11(55%) do nothing for management of low back pain.

In Control group 13(65%) work in the general ward, 11 samples (55%) had 6 hours of work shift & total of 36 hours per week. Regarding work experience 9 (45%) had 4-6 years of experience, 7(35%) had nurse patient ratio of 1:4-1:6 and get <10 minutes of break during a work shift, 7(35%) samples said no prolonged standings, 10(50%) samples do lift heavy patients/loads during work, all the 20 samples get weekly off. 13(65%) samples had low back pain weekly among which 9(45%) samples had low back pain since 1-2 years. 10(50%) sample feel continuous low back pain while 13(65%) had dull low back pain. All the samples had restriction of activity as effect of low back pain and 19(95%) of the group had no pain in other area than back but did not see doctor & no tests were done to rule out causes of low back pain. Majority 15(75%) samples had not been taking medication for relieving low back pain. 100% samples had no other co-morbidity. 10(50%) of the samples never do any types of exercises. 13(65%)do nothing to relieve low back pain.

Section III: Assessment of pre-test and post-test score of level of low back pain

Level of low back pain among staff nurses in Control Group

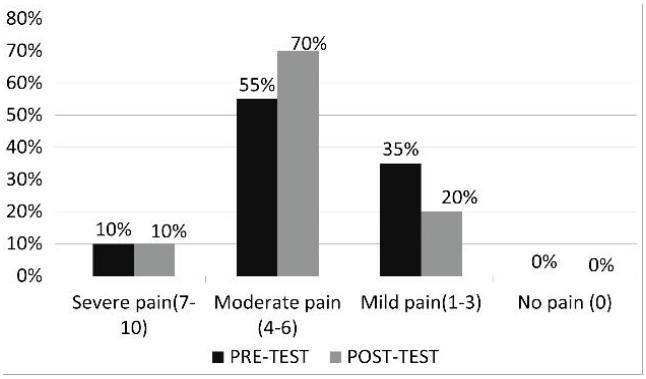


Figure No.1: showing percentage distribution of score of level of low back pain among staff nurses of control group.

B) Level of low back pain among Experimental Group

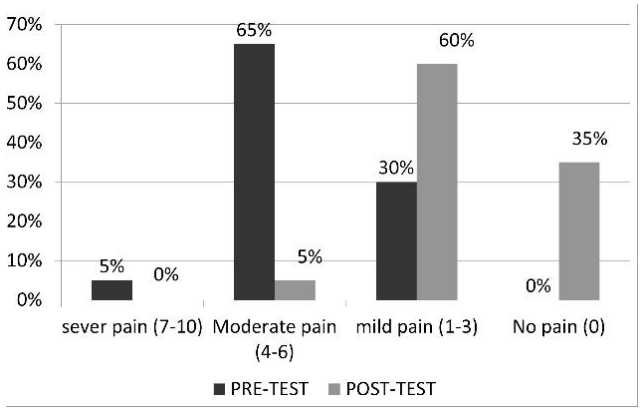


Figure No.2: showing percentage distribution of score of level of low back pain among experimental group before and after Acupressure therapy

In fig.no 1 &2 data revealed that in experimental group, 1(5%) of the samples had severe low back pain, 13(65%) moderate pain and 6(30%) samples had mild pain before administration of Acupressure therapy which after administration of acupressure therapy level of low back pain reduced and no one was in the category of severe pain, 1(5%) in moderate pain, 12(60%) in mild pain and 7(35%) had no pain. It was found that as the

subjects in the control group received no treatment there was only a very small changes in the pre-test and post-test scores of level of low back pain, in which pain level has not decreased but increased. 2(10%) samples had severe pain in the pre-test, remains unchanged in the post-test, 11(55%) samples had moderate pain in the pre-test increased to 14(70%) in the post- test, 7(35%) of the samples had mild pain in the pre-test, is decreased to 4(20%) in the post-test and no one could achieve to the category of no pain in the post-test.

c) Comparison of post-test score of value of level of low back pain among control and experimental group

Table No. 1: Mean, SD, SE and df of post-test score of value of level of low back pain among control and experimental group (n_1 =20, n_2=20)

Post Test	Mean	Mean Diff.	SD	SE	df	T Value	Table Value
Control Group	4.6	3.45	1.11	0.34	38	10.14	2.02
Experi- - mental Group	1.15						

Table No.1 depicts that post-test mean score of control and experimental group were 4.6 & 1.15 respectively, with a mean difference of 3.45 & SD 1.11, SE 0.34 at df 38. The calculated "t" value is 10.14 is greater than the Table value of 2.20, which was statistically significant at the level p□0.05. This shows that the Acupressure therapy was highly effective in reducing low back pain among staff nurses of experimental group. Thus H2 is accepted.

Section IV: Comparison of Pre & Post-Test Mean Score of Level of Low Back Pain among Control and Experimental Group

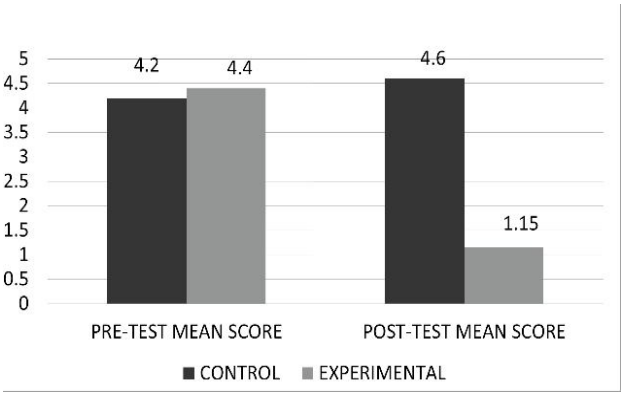


Figure No.3: Bar diagram showing percentage distribution of pre-test and post-test score of level of low back pain among staff nurses of control and experimental group

Section V: Association between level of low back pain and selected socio-demographic variables:

Data revealed that in control group the calculated Chi square value at df 6 was 17.30 and the Table value 12.59. This shows that there was significant association found between age and level of low back pain. All other socio-demographic variables such as gender, height, weight, BMI, educational status, marital status, types of family and hours of sleep had no significant association with the level of low back pain.

In experimental group all the socio-demographic variables have no significant association with the level of low back pain.

Section VI: Association between level of low back pain and selected clinical variables:

Data shows that in control group the calculated Chi square value for working hours is 13.40 at df 6, total working hours per week is 13.40 at df 6, and work experience in years at df 8 was 22.93, for visit to doctor for low back pain was 20.74 at df 6 and for management methods for low back pain chi square value was 16.20 at df 8, this indicate that there is significant association between these clinical variables and level of low back pain. Rest all other clinical variables have no significant association with the level of low back pain but in experimental group all the clinical variables have no significant association with the level of low back pain.

DISCUSSION

Socio-demographic variables

In the present study in experimental group, 75% samples were female and 25% male. Majority of the samples 16(80%) were in the category of 21-25 years age group. For height, 8(40%) of the samples were in the category of height 153- 164 cm of height and 7(35%) samples were in each category of 41-52 kg and 53-64 kg of weight. 13(65%) had BMI of 18.5- 24.9, regarding educational status, 13(65%) of the samples had pursued educational qualification of B.Sc. in Nursing. majority 16(80%) of the samples were unmarried and 13(65%) belonged to nuclear family. 11(55%) of the samples take 6-8 hours of sleep. Whereas, in control group, majority 13(65%) of the samples were female and 7(35%) were male, (35%) were in the age group of 21-25 years. For height, 8(40%) were in the category of height 153- 164 cm of height and 8(40%) were in the category of weight between 53-64 kg and 15(75%) samples had BMI of 18.5- 24.9. 13(65%) of the samples had pursued educational qualification of B.Sc. in Nursing. Majority 12(60%) were married more than half of the samples 16(80%) were from nuclear family. Half of the samples 10(50%) of the samples take 4-6 hours of sleep.

Clinical variables: In the experimental group more than half 11(55%) of the sample were posted in ICU, had 15(75%) of the samples had 8 hours of work shift and 48 total hours of work per week. 12(60%) Work experience was between 1-3 years. Had more than half 12(60%) samples had nurse patient ratio of 1:1-1:3.and 8(40%) samples get 11-20 min of break. It was identified that 12 (60%) of the samples had work related stress. There were 8(40%) Prolonged standing of 5-6 hours in a shift duration and 13(65%) of the samples do lifting heavy patients/loads always. All the samples 20(100%) got weekly day off. The frequency of low back pain was weekly in 10(50%) samples and 10(50%) of continuous back pain. The samples 11(55%) were having low back pain since 1-2 years. The characteristics of low back pain was dull for 8(40%) of the samples. Majority of the samples had restriction of activity as effect of low back pain. All the samples had no pain in other area than back.16 (80%) samples do not take medications to relieve low back pain

and all the samples 20(100%) were not seeking any therapy for low back pain at the time of data collection and were not suffering from any other medical condition. 11(55%) never do exercises and 11(55%) do nothing for management of low back pain.

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The above findings can be supported from the following studies:

Al-Samawi Mauaadh A G (2015) Conducted a cross sectional study to estimate the incidence, to identify risk factors, and impact of illness of LBP among nurses and found that the majority of nurses, (87.5%), experience LBP on a regular basis Female participants complaining of LBP were significantly more than male participants (85%) of the total female reported LBP. There were significant relationship between age and working hours (.015). Many risk factors were identified, lifting, moving equipment, positioning of patients in bed, work load, pressure and a poor working environment were the most perceived work-related risk factors for LBP.

Emmanuel NM (2015) carried out a cross-sectional survey was carried to assess the prevalence of Low Back Pain (LBP) among nurses, their risk status and association between LBP and selected demographic and clinical variables in College of Nursing, Christian Medical College, Vellore, India. The samples were female nurses between the age group of 20 and 60 years. The study showed that there was a significant association ($p < 0.001$) between LBP and age, body mass index, experience, and place of work.

Effectiveness of Acupressure therapy on level of low back pain among experimental group

It was found that after administration of 2 weeks (9 sessions) of Acupressure therapy there was a marked reduction in the level of low back pain among the staff nurses of experimental group. The pre-test mean score of level of low back pain of experimental group was 4.2 which in post-test reduced to 1.15,

with mean difference of 3.05, SD 1.09 and the computed "t" value is 12.7 at df 19 which is greater than the table value 2.09. This indicates that the reduction in level of low back pain is statistically significant at the level p□0.05.

The above findings were supported by the study conducted by (**Maryam M (2017)** who conducted single-blind randomized clinical trial among 50 female nurses to assess the effectiveness of Acupressure therapy in reducing the severity of chronic low back pain among nurses and the results of this study revealed that acupressure, if conducted immediately after, 2 weeks after, and 4 weeks after the intervention, reduces pain in nurses with chronic back pain. The mean of pain after intervention significantly decreased compared to pre-intervention phase (P < 0.05). Therefore, the use of acupressure to reduce the severity of CLBP is recommended for nurses.

CONCLUSION

Low back pain is the leading cause of global disability and occupational musculoskeletal disease that occurs most frequently in nurses among all health professionals. 50-85% of the whole population experience low back pain at a certain point in their life. Low back pain ranks the second as a reason for work-force loss and health expense following cancer pain and it is a common occupational health problem that results in serious physical, cognitive, sensory and emotional obstacle for nurses. Amidst various treatment modalities acupressure therapy has been shown to be effective in reducing low back pain, owing to its advantages as free of cost and adverse effect, it is gaining the popularity and recognition. This study revealed that with application of Acupressure therapy continuously for at least 2 weeks, there is a significant reduction in the level of low back pain among staff nurses having found with low back pain.

Acknowledgment: I am thankful to all the participants who have willingly participated in the study.

Conflict of interest: None

Source of funding: Self

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What does the study convey?

Low back pain is a very common health problem worldwide and a major cause of disability - affecting performance at work and general well-being. Nurses provide direct care for the patients which demands patients' lifting & shifting and many more such activities. Therefore, the frequency of low back pain is higher in nurses when compared with other health professionals and rest of the society.

Who will use these findings?

The findings of this study will help professionals to identify nurses with low back pain and who are at high risk for developing it. Acupressure therapy, as shown by this study can help alleviate the degree of disabilities, improving work efficiency & productivity, promoting health and well-being, thus quality of life for nurses.

How can the findings be put into practice?

Nurse administrators can conduct in-service education and workshops about the use and effectiveness of acupressure therapy to reduce low back pain. With interdisciplinary collaboration they can plan and implement protocols on acupressure therapy for nurses as well as different categories of health personnel for effective delivery of health care services.

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NURSE IN ACTION!
This Is Why I am So Proud of What I do

Manisha Pantha

I am a nurse and I am proud of it.

But I never felt like this when I started my nursing career at the Choithram College of Nursing in Indore back in 2006.

Nursing for me at that time was just another job and a possible ticket to reside in another country.

Like many others, I used to just see the constraints of this job. Moreover, I was the first member of my family to have entered the nursing field.

So, then how did I become a nurse and then went on to be so proud of it?

Well, I was inspired by a friend who was adamant on enrolling in the nursing course and I was equally insistent in doing whatever she chose. I was anxious in the start because I was new to this field and had not done any research into this course's scope and potential.

I noticed my seniors at college, marked by discipline, sincerity, and a strong desire to serve others, which gave me an indication of this noble profession. I had no clue that this course would not only add a degree to my educational resume but it would also shape my personality and turn me into a more responsible person.

After graduating from nursing college, I worked in a rural hospital for a while, where I was exposed to an incident that forever changed my perspective on nursing.

There was an accident in which 17 people were injured and all were brought to the hospital I was working in.

As it was a small hospital with limited resources and no emergency response plan or preparedness for such situations, panic struck us and it all became chaotic. Somehow, we were only able to care and stabilize the patients before referring them to other hospitals with more advanced facilities.

This episode became a turning point in my life as I considered pursuing a career in Disaster Risk Management (DRM) and advocating for Hospital Preparedness for Emergencies (HOPE).

As I progressed in the field of disaster preparedness and response, I was able to complete rescue and response courses such

as Medical First Responders (MFR), Collapsed Structure Search and Rescue (CSSR), Hospital Preparedness for

Emergencies (HOPE), and Community Action for Disaster Response (CADRE).

Not only did I learn these courses but I also graduated as an instructor and am now teaching these courses in the South Asian regions like Nepal, India, Bangladesh and Pakistan.

I am proud of being part of training more than 10,000 responders in the region, and contributing to preparedness, risk reduction and response (PR3) to disasters in my country, Nepal.

After gaining knowledge and expertise in the field of DRM, I have realized that Nursing is related to many other fields. Nurses can play an important role in disaster prevention and mitigation by promoting the creation of safe surroundings. Despite the fact that disaster preparedness is not a new concept, we and many others in our community fail to take it seriously.

We in the nursing education are trained to work in all areas of the Disaster Risk Management (DRM). Nursing is applicable in the whole spectrum of the DRM and a nurse can play a vital role in triaging and stabilizing the victims on the site of disaster, for effective and secured victim transportation and also in the treatment of the victim in hospitals, and even after disasters via psychosocial counseling.

And then I realized that though I believed I had shifted from Nursing to Disaster Preparedness and Emergency Response, I was still doing nursing throughout my career since 2011 by imparting the knowledge and skills of rescue and response to the communities.

To begin with, I assisted in the development, upgrading, and delivery of fundamental community training courses such as Basic Emergency Medical Response (BEMR), Community Search and Rescue (CSAR), and Community Actions for Disaster Response (CADRE).

Because, local residents are the first responders to any disaster, training this group

of people aid in the rescue and proper handling of victims on the scene. Second, a professional responder team, which is primarily made up of members of the security forces, is dispatched. I worked in giving professional training such as MFR and CSSR to rescue teams so that they could conduct advanced search and rescue operations and employ medical skills at the level of Emergency Medical Technicians to treat victims on the scene and transport them safely to hospitals.

Finally, I provided training in Hospital Emergency Preparedness, which includes building a hospital's disaster preparedness and response plan and activating the Incident Command System to handle Multiple Casualty Incidents.

I use my nursing skills to provide immediate medical assistance whenever and wherever it is needed without wearing a uniform or working in a hospital setting.

I have a strong desire to continue to train more "Manisha Panthas" who will work in the field of disaster response and emergency preparedness by providing support at all levels.

Nurses, in my opinion, should not only work in hospitals after gaining a thorough understanding of health care delivery as well as teamwork and determination skills, but should also go outside and collaborate with Search and Rescue teams in extricating victims and providing immediate medical care to them. Because research and experience both indicate that shortening reaction time can save more lives especially during disasters.

Although I work hard in training these courses, get burnt under the sun, march together to match up the energy of security forces but saving victims provides immense joy and

gives meaning and worth to all the hard work.

So, now you know why I am so incredibly proud to be a nurse. And I am also grateful to everyone who encouraged me to pursue such a rewarding profession.

Commentary

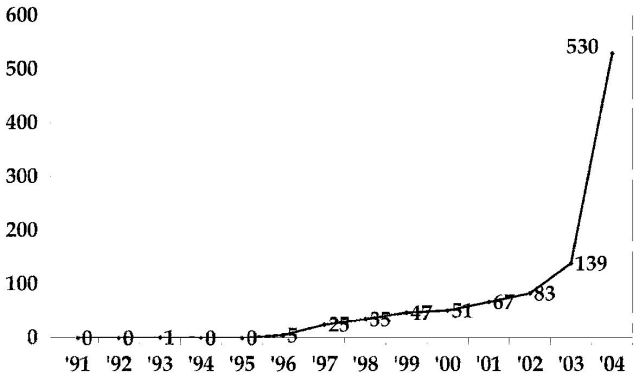
EVIDENCE INFORMED PRACTICE (EIP) IN NURSING EDUCATION

Dr. Usha Mullick Ukande

Beginning with Florence Nightingale in the 1800s and evolving again (after a long gap) within the Medical and Nursing community, evidence-based practice continues to advance.

Evidence-based practice (EBP) is foundational to undergraduate and graduate nursing education and is a way for the nursing discipline to minimize the theory to practice gap. Utilizing nursing's best practice guidelines, reviewing and implementing applicable research evidence, and taking advantage of technological advances are all ways in which nursing can move forward as a well-informed discipline.

Evolving Interest in Evidence-Based Practice:



EBP is defined as "the conscientious, explicit and judicious use of current best evidence in making decisions about the care of the individual patient. It means integrating individual clinical expertise with the best available external clinical evidence from systematic research."

Now, you may be wondering as to "what is Evidence Informed Practice?"

As the term "Evidence Based Practice" is being used by the practitioners in medicine, nursing and other practice based disciplines, the educationists came up with the term "Evidence Informed Practice in Education" sometime around 2011-2014.

Securing a precise definition of EIP is challenging. Contentious questions include: are 'research' and 'evidence' one and the same, for example - are 'evidence-based' and 'evidence-informed' practices fundamentally different and, perhaps the most intensely debated, 'Whose evidence counts?'

Many stakeholders use the terms 'evidence-based' and 'evidence-informed'

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interchangeably. Jonathan Sharples, in his description of what evidence-based practice is not, makes a strong case for evidence-informed practice, where he states, “Evidence-based practice is not 'cook book' teaching or policing, nor should it be about prescribing what goes on from a position of unchallenged authority. It is about integrating professional expertise with the best external evidence from research to improve the quality of practice. Same applies to Evidence Informed Practice (EIP)' (Sharples 2013, p.7).

There is a lack of consensus about the 'meaning' of EIP, with key questions still requiring resolution. For example: 'What constitutes reliable evidence?'; 'Is experimental research always the “gold standard?”'; and 'What is the status of educator/practitioner-led research?.' Further investigation is also needed to understand better the 'mediating processes' that connect evidence and practice.

Views of Isaac Nevo, Vered Slonim-Nevo on EIP give some clarification to this term. He states, “Evidence-informed practice (EIP) should be understood as excluding non-scientific prejudices and superstitions, but also as leaving ample room for clinical experience as well as the constructive and imaginative judgments of practitioners and clients who are in constant interaction and dialogue with one another.”

Under the EIP model, there is no need for the five-steps procedure of the EBP model, but only that practitioners will become knowledgeable of a wide range of sourcesempirical studies, case studies and clinical insightsand use them in creative ways throughout the intervention process.

A related point is that 'evidence-based' and 'research-informed' practice are not one and the same, although research evidence is an integral piece of the evidence-informed. There is also disagreement about the value of research that is generated by educators. Such research is often dismissed as small scale, anecdotal or non-replicable (Borg 2010; CUREE 2011; Enthoven and de Bruijn 2010.)

A survey among 696 practitioners in 79 schools was conducted and the findings suggest that, should they wish to increase EIP within their schools, school leaders need to:

1) Promote the vision for evidence-use (i.e. actively encourage its use);

2) Illustrate how research and evidence can be effectively employed to enhance aspects of teaching and learning;

3) Establish effective learning environment and “Be committed and accountable” to adopt these strategies.

There is also increasing recognition that EIP is not a simple matter of improving the supply of research, or increasing the demand for it (Nelson and O'Beirne 2014), but rather that key preconditions must be in place so that educators are 'ready' to critique, implement and adapt evidence as they encounter it (Roberts 2015). Evidence needs to be planted

in 'fertile ground' if it is to take root and grow. How to prepare a fertile ground for adopting EIP in nursing education?

Here are a few tips for nursing educators:

- Base educational content on evidence.
- Seek the most current forms of evidence, e.g. journals & online sources vs. Text books.
- Encourage students to question and challenge.
- Teach research content in a manner that is interesting and useful.
- Be a role model, a life long learner.
- Innovate and share it

EIP in nursing education requires sustained institutional, administrative, and collegial support to promote faculty effectiveness and student learning.

Most of the Authorities in EIP (Danielle LaPointe-McEwan, Christopher DeLuca and Don Klinger (Queen's University, Ontario, Canada), and Chris Brown, Kim Schildkamp and Mireille Hubers (University College London, England and the University of Twente in The Netherlands) argue that "EIP must be seen as the integration of professional judgement, system-level data, classroom data and research evidence".

Educators often do not know how actually to 'mobilize knowledge' for EIP created at institutional level through innovative methods.

This can be achieved, if they:

- Plan strategies,
- Capacity building of teaching faculty
- Ensure right processes
- Seek desired outputs,
- Develop networks, partnership with other institutions and agencies.
- Communicate and disseminate the outcomes;

Promotion of EIP can be achieved if opportunities for collaboration, co-creation, sharing and application of professional knowledge is understood and put to action. As Campwell & colleagues has suggested, 'Blending the importance of quality products, collaborative relationships and commitment to developing capacity and addressing challenges system-wide" are crucial to the mobilization of research and professional knowledge genuinely for evidence-informed practice.'

Furthermore, emphasis should be on: Identifying the best available research evidence and integrating it with other factors such as expertise, student's preferences, circumstances, resources, teaching & learning & clinical situations.

Nurse leaders from both academic and clinical fields must establish a new culture based on use of evidence, create the capacity for organizational change, sustain shift through revision in the system's infrastructure, find out barriers to adopting evidence, plan strategies for overcoming

barriers and reflect on project effectiveness.

The barriers to adopting EIP can be overcome through individual & organizational efforts using strategies such as in-service education, journal clubs, nursing rounds, and having access to computers & internet, library, research articles etc. available for easy reference to promote EIP/EBP as part of quality improvement in nursing education and nursing practice.

"Science is 'Organized Knowledge', Wisdom is 'Organized Life'."

Yes ! Nurse leaders need to acquire both.

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OPTIMUM HEALTH

"Find out what sort of person had the disease, than the sort of disease the person had"

- Hippocrates

Each patient carries his own doctor inside him. The best a health practitioner can do, is to give the doctor who resides within each patient, a chance to work.

Ms Florence Nightingale, the founder of modern nursing also has said, " human body has all the power to heal itself, the only thing the care takers, the nurses need to do is to remove the obstacles to healing by creating conditions conducive to healing. How this can be done? Very simple, do the following : put the individual in a clean environment by ensuring cleanliness, proper ventilation, clean air, sun light and supply of clean water. Also ensure that the person's internal environment is also maintained at the optimum by keeping his body surfaces clean (bathing and wearing clean comfortable clothes), giving good nutrition, and facilitating positive communication". Simple, yet most important for enhancing healing process. Ms Florence Nightingale had set an example of this fact when she brought down death rate among the wounded soldiers from 42% to 2% within six months, in Scutri way back in nineteenth century. How she and her team of nurses made this happen was by taking care of the 'whole person' in holistic way, not only looking after the physical dimensions of those wounded soldiers but also their mental, emotional, social and spiritual dimensions.

Body mind and spirit are very delicately and subtly connected. All healthcare professional need to understand this unique phenomenon. If we observe people healthy or ill deeply and keenly, we do find that every human being responds or reacts to a disease in different ways based on various factors and one of those factors is his belief regarding health or disease. All those who have positive belief system about health know that health is their own responsibility, they follow right life style and seldom fall victim to disease.

Sadguru says, "Just with the right food, right practices and a little change in attitude, you will see this body becomes a miracle. You have received this body as a gift from your creator and your duty is to cherish and take good care of it."

A healthy body will harbour a healthy mind and your spiritual self residing deep within you will take you further towards making you a cheerful- healthy- happy being.

And such individuals as health professionals will contribute enormously in keeping populations in optimum health.

Start today and with yourself!

Dr Usha Mullick Ukande

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