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Editorial

- Nursing and midwifery make up the largest single group of human resources for maintenance of health of the people in both hospital and communities. People all over the world are demanding high quality, accessible and affordable health care. Health is influenced by demographic, socioeconomic,political and environmental factors. Increasingly, people who are sick, disabled or elderly are looked after by informal carers, because all cannot and should not be admitted in the hospitals for various reasons. Therefore , people in general need to be equipped with appropriate skills and knowledge by health care professionals. The role of nursing has, therefore, evolved to meet changing health care needs of populations. Nursing practice today must concentrate on the core values of its discipline that is, it must work towards:

- Disease prevention.
- Enhance health promotion
- Restore health
- Improve quality of life

Through research, and following EBP, nurses can explore the ways and means for planning strategies and activities to fulfill the above role responsibilities. The process has to start with nursing education.

Transformation in nursing education can prepare future clinical nurse practitioners to address the new trends, issues and challenges, which are:

- The technological explosion, particularly information technology.
- Changing population demographics and disease patterns.
- The era of the educated consumer,
- Alternative therapies and genomics, and palliative care
- The shift to population based care.

Nursing is a scientific discipline as well as a professional journey. Therefore, nurses as scientists must rely on evidence to guide their policies and practices. Not forgetting that, “central to nursing practice is the art of caring and the personal relationship”.

Once again, I would like to emphasize that, across the profession combining the art and science, nursing must focus on the promotion and maintenance of health and the prevention or resolution of disease, illness or disability.

In the present issue of IJNS you will find research based articles and experiences shared by nurses where they are seen meeting health care needs of people outside the hospitals in the community through preventive strategies, promoting and restoring them to their optimum health.

Happy Reading!!

Dr. Usha Mullick Ukande

Guest Editorial

COMPETENCE BASED NURSING EDUCATION
To develop competent, confident, concerned, and compassionate Nursing professionals

*** Prof. Dr. Rupa Verma**

The term competence means an ability to do something efficiently and successfully. Competency or being competent means a skill or potential by learning and experience. Being competent simply means know-how or being able to carry out a prescribed task skillfully and tactfully. Competency is an attribute that is based on one's interest and motivation.

Competency based learning or Competency based Eduction (CBE) is an outcome based approach to education to make sure expertise in learning by students through demonstration of the knowledge, skills, values and attitudes required for dealing with real life situations at the age and grade appropriate level.[1]

A nurse is meant to have a complete dedication for development & implementation of nursing care, through continuous acquisition of appropriate and accurate knowledge, attitude, skills, application of critical judgment and evaluation.

Nursing competency involves core abilities that are needed for fulfilling one's role as a nurse. Hence, it is essential to clearly define nursing competencies to establish a foundation for nursing education curriculum. The revised curriculum by Indian Nursing Council, for BSc nursing Graduates focuses on following core competences:

1. Patient centric care: Provide holistic care recognizing individual patient's preferences, values and needs, that is compassionate, coordinated, age and ethically appropriate safe and effective care.

2. Professionalism: Display accountability for the delivery of standard-based nursing care as per the Council standards that is consistent with moral, altruistic, legal, ethical, regulatory and humanistic principles.

3. Teaching & Leadership: Through teaching and leadership, influence the behavior of individuals and groups in their surroundings and support the establishment of common goals.

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4. System-based practice: Exhibit awareness and responsiveness to the context of healthcare system and the potential to manage resources essential to provide optimal quality of care.

5. Health informatics and Technology: Use technology and synthesize statistics and collaborate to make crucial decisions that optimize patient outcomes.

6**. Communication**: Interact efficiently with patients, families and colleagues fostering mutual respect and shared decision making to increase patient satisfaction and health outcomes.

7. Teamwork and Collaboration: Work effectively within the nursing and interdisciplinary teams, fostering open communication, mutual respect, shared decision making, team learning and development.

8. Safety: Reduce the risk of injury to patients and providers by improving both system and individual performance.

9. Quality improvement: Use data to monitor the conclusion of care processes and utilize improvement methods to design and test changes to constantly improve the quality and safety of healthcare system.

10. Evidence based practice: Recognize, evaluate and use the best current evidence coupled with clinical expertise & consideration of patient's preferences, experience and values to make informed decisions.

To achieve above competencies, we have to adopt different training methods for teaching nursing students like problem based learning, case based learning, and team based learning and self-directed learning to achieve critical reasoning and judgment. These learning methods presents a nursing scenario with a problem and situation, students here create their own learning tasks and are involved in active leaning. This method promotes student centered learning instead of active teaching. This will help nursing students to think critically and groom themselves into a competent, confident, concerned and compassionate nursing professional. To facilitate this, Matsutani et al. categorized nursing competency into 7 elements subsisting within 3 major components:

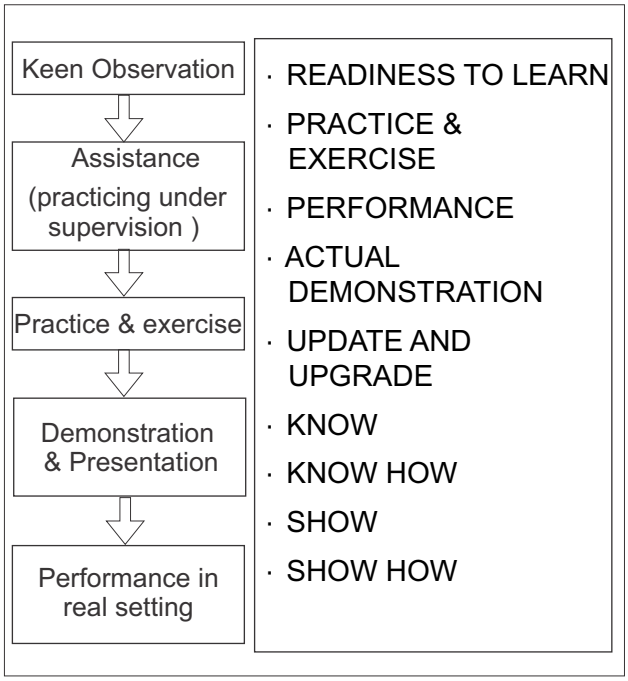
1. The ability to understand people by applying knowledge and building interpersonal relationships
2. The ability to provide people-centered care
3. Providing nursing care
4. Practicing ethics
5. Collaborating with other professionals to improve nursing quality
6. Expanding professional capacity

7. Ensuring the delivery of high-quality nursing

We need to explore training and teaching methods for developing clinical nurses' competency. We understand that, the clinical nursing practice is providing patient-centered care to achieve certain objectives and accordingly nurses provide everyday care in fast-changing clinical settings using abilities acquired through knowledge and skill acquisition processes. Also it is an important aspect connecting knowledge and skills is clinical judgment. The clinical judgment process includes reflection, which connects one's own actions and their results. And accordingly this reflection is a component of clinical judgment. Consolidating knowledge and skills in clinical settings is a feature of nursing competency and is associated with a core ability to provide care, based on the needs of the person who is receiving the care. It is an effective reflection that is closely related to nursing competency improvement. Professional nursing practice involves making judgments, both as a care provider and learner, and also reflecting upon one's actions as the care is being delivered, and after the care is completed. Nursing practice, by itself, is critical for competency development.

TECHNIQUES OF UPGRADING COMPETENCY

Different innovative methods are required while teaching and learning in classroom, laboratories, clinical areas and community setting, listed below are few examples:



Different learning methods:

Kolb has identified a repertoire of several learning styles that can be considered as a continuum of learning phases [cycles] ranging from “Thoughtful and attentive observation, to concrete experience of action, to abstract and theoretical conceptualization, and finally to action experimentation”. According to Kolb, every learner prefers a different learning style according to his or her own preferences, which he classifies through the following traits:

According to Kolb, understanding students' learning styles is very important for improving student effectiveness.

Innovative learning / teaching styles in nursing education

Learning styles according to Kolb:

Divergent	Assimilator	Convergent	Accommodating
• Practical experience • Observation. Emotional • Creative and open with other people.	• Oriented towards less important people, has more interest in ideas and representations of an abstract nature. • Presentation format and organization of information characterized by clarity and logic.	• Has the ability to solve problems and enjoys activities of a technical nature • Is not very concerned with individuals and interpersonal aspects.	• Learn well through hands-on experience and active experimentation. • They have a practical or experiential preference.

Active Learning

Learning in which the learner is the principal driving force, with the instructor (if one is present) as facilitator of the process -- among the many active learning approaches are experiential learning, cooperative learning, problem-solving exercises, writing tasks, speaking activities, class discussion, case-study methods, simulations, role playing, peer teaching, fieldwork, independent study, library assignments, computer-assisted instruction, and homework[6]

Co-operative Learning

Learning situation in which students work together in small groups. Evaluation may be based on the group's performance.

Problem based learning

Any educational process that engages students to collaboratively investigate and resolve one or more ill-structured (open-ended) real-world problems[6]

Flipped classroom

Teaching method where lecture and practice are reversed, with students reviewing lecture materials in place of homework then practicing what they have learned in class.

Electronic learning

Using electronic devices, applications, or processes to acquire or transfer knowledge, attitudes, or skills through study, instruction, or experience. Content delivery modes include, but are not limited to, Internet, local and wide area networks, CD-ROM, audiotape and videotape, satellite broadcasts, stand-alone computers, and interactive TV. Although frequently associated with digital technologies, electronic learning may also utilize other electronic technologies.[6]

Collaborative testing

Quizzing has become a popular method of assessing learning & retention of knowledge as well as a mean of engaging students. In collaborative testing. Students work together in small groups to complete quizzes before

they select their final answer. Therefore, an important aspect of collaborative testing is the peer interaction, education, and collaboration during discussing each question.

Faculty-student interaction:

D'Souza et al. highlighted and summarized the important roles of nursing educators to promote nursing students' engagement in the clinical environment. The author suggested that to increase students' academic engagement, nursing educators should: (1) involve students in teaching strategies, (2) balance student's clinical activities with clinical assignments, (3) provide wide range of clinical activities, (4) appreciate the individual difference, (5) provide them with multidimensional resources, (6) group students for reflective activities, (7) create an atmosphere to enable students to learn, and (8) continuously supervise their activities. Authors found that when students and faculty actively share learning opportunities with each other, students are motivated to be more engaged in the new clinical learning environment.[11]

Service-based strategies

Service-based learning involves learning that takes place outside the classroom in a structured way between the learner and a service, and seeks to achieve common goals. It is a kind of partnership that bridges academic and community needs. This type of learning is mostly done in the community, but it can also be used in clinical settings

Simulation with manikins

Manikins have been long used in nursing education since they can provide safe and repeatable conditions for practicing. Power et al. simulated five separate case studies during ten teaching weeks. They aimed to explore student perspectives (n=9) of the use of vignettes to increase engagement with manikins. Authors through thematic analysis and group discussion found that manikins are an effective procedure for increasing SE. Authors believed that if the appropriate educational scenario is selected in this learning method, the instructors will be able to actively engage nursing students in the learning process and to promote their decision-making skills[10]

Research-based strategies: Q methodology

Q methodology is a mixed-method for conducting research that targets on individuals' preferences and subjective attitudes. Participants can express and share their viewpoints within the group

Innovative evaluation /assessment style in nursing

Innovative evaluation strategies like 'Objective Structured Clinical Evaluation' (OSCE), Rubrics, are now widely being used in nursing education. OSCEs are widely used to evaluate clinical skills and competencies. In clinical nursing education, rubrics are used to objectively assess student performance and it focuses on aspects of patient safety

Educational Quality Assurance

The trend of educational quality assurance has emerged recently. It is a process of monitoring and evaluating the efficacy and effectiveness of educational provision and to institute remedial measures as and when needed. In India nursing education is flourishing in an unprecedented manner, naturally this will lead to the dilution in the quality of nursing education. Accrediting agencies like NAAC/ ISO have taken the initiative of accrediting colleges of nursing in India.

Innovation in the evaluated curriculum

Nursing education needs to innovate at the micro and macro system levels for the 21st century. It cannot be business as usual. In order to truly transform care, practice and education will need to partner on curriculum development and the professional socialization of the new and competent nurse.

Conclusion

Nursing education is encountering many modifications from the traditional classroom to web-based clinical instruction in the profession. This transformation continues using creative teaching strategy as a crucial skill for academic staff. Innovating teaching strategy is not an easy task, it includes, a combination of technologies. These innovations shifted the nature of the professional relationship to the next level, the way learners interacted with the material, and how this was connected with clinical practice made it upgraded and updated. This deviation made accommodation for much creativity, depth, and exploration; safe practice for success, as well as errors that could be corrected. And the opportunity to focus on difficult-to-reach aspects of nursing skills and early graduate clinical experiences.

It is this competence-based curriculum that will give an impact by appraising the new Graduate nurses to have required skills, as they are in transition; the experience will offer them possible solutions to difficult and often unexplored aspects of their beginning practice. Competency should be central to nursing practice as it is a critical contemporary issue to ensure a future supply of high-quality nursing care professionals. There is much work remaining to be done to evaluate the effectiveness of competency-based curriculum innovation. Articles, research, and the use of competency-based teaching, learning, and evaluation are on the way to making a major contribution to this field.

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11) Open Journal of Nursing, 2013, 3, 25-32OJN http://dx.doi.org/10.4236/ ojn.2013 .31004 Published Online March 2013 (http://www.scirp.org/journal/ojn/ Engagement in clinical learning environment amongnursing students: Role of nurse educators*Melba Sheila D'Souza#, Ramesh Venkatesaperumal, Jayanthi Radhakrishnan,Shreedevi Balachandran

STRENGTHENING HEALTHY FATHERHOOD BY EARLY DETECTION AND SCREENING OF PATERNAL MENTAL HEALTH ISSUES

*** Oshin Pranjul David, ** Vaishali Tiwari, *** Christy Abish**

Abstract

Pregnancy is considered as the most beautiful and crucial transition of the life. The changes are experienced not only by mothers but the expectant fathers too. This journey from being an expectant father to fatherhood is considered to be the vulnerable phase for the father-to-be. This study aimed to strengthen the healthy fatherhood by early detection and screening of depression, anxiety and stress as well as the contributing factors. Mixed method approach was adopted in which DASS-21 was administered to the 30 expectant fathers who were selected by non-probability purposive sampling technique. Those who rated depression, anxiety and stress by nested sampling, 8 samples were drawn out for the in depth interview by semi structured questionnaire with an aim to explore the factors associating to poor mental health. On analysis it was revealed that 3 (10%) rated mild depression & 2 (6.66%) moderate depression, 3 (10%) rated mild anxiety, 6 (20%) moderate anxiety & 2 (6.66%) were having severe anxiety whereas 5 (16.66%) rated mild stress, 7 (23.33%) moderate anxiety & 1 (3.33%) was having severe stress. Areas of concerns, perception of pregnancy, transition in this phase and stressors hindering to mental health are the themes derived from the verbatims of the expectant fathers. Hence, it can be concluded that despite growing interest and concern about men's mental health during the perinatal period, we still do not know whether men too are vulnerable to mental health problems during this period.

KEYWORDS: Expectant Fathers, Paternal Mental Health, Stress, Depression, Anxiety

BACKGROUND

Being conceived is the most beautiful sequence of life. It's not only mothers who get pregnant, but a couple gets pregnant. The journey from couple-hood to parenthood is not only full of new moments, happiness and excitement but it's a period of great change physically as well as mentally. The un-illuminated part is that, care, love and support are only rendered to the mothers, but the fathers are deprived of it. Such non support to

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the fathers lead them to have poor mental health resulting in paternal depression, anxiety and stress. Are females only the persons who are becoming mothers first time? What about the worries, stress and anxiety that every male faces before and after entering in to fatherhood? Paternal mental health is also that much important as is the maternal mental health.

Paternal mental health issues and well- being under this transitional phase of life is still an under searched and poorly understood phenomenon in the society. There is a need to introspect the factors concerning the poor mental health of the fathers as this is a public health issue. A systemic review of various studies of different countries like USA, Sweden, Canada, Australia was done which helped to draw inferences that areas such as new fatherhood identity, negative feelings and fears, competing challenges of new fatherhood and lack of support direct fathers to lead to inappropriate coping and poor quality of life. Fathers do show maladaptive ways such as smoking, working for long hours, etc. as their coping techniques to overcome the stress. There is a need to address paternal mental health and well-being. For preparations of fatherhood, proper guidance and information must be provided to the couple from the day the woman conceives. Barriers must be crossed so that fathers can contribute better adaptability and adjustment to this maturational crisis. **(Sharin Baldwin, 2018)**[1]

Dr. Singley, fatherhood mental health expert, has explored and presented in his article with an aim for social campaigning and creating awareness to vanish all stigmas and taboos in the society and to highlight the key aspects of father's mental health. **(Postpartum Support International, 2019)**[2]

NEED OF THE STUDY AND REVIEW OF LITERATURE

Starting a family is an important milestone in the couple's lives. Being prepared physically as well as mentally is one of the key steps which will lead to healthy parenting. Unfortunately, many couples encounter poor coping skills making them to face mental ill health issues. This will not only put an impact on the quality of life but also on the parenting of child. Globally around 68% of women and 57% of men are parents with mental health issues. Depression, anxiety and post-traumatic stress disorder are the most common mental health problems faced during pregnancy and after delivery. Following is statistics of maternal health issues: 2 per 1000 postpartum psychosis, 2 per 1000 serious mental ill health, 30 per 1000 severe depressive illness, 100-150 per 1000 mild to moderate depressive illness and anxiety states, post-traumatic stress disorder 30 per 1000 and 150-300 per 1000 adjustment disorder and distress. Studies showed that 38% of first time fathers concerned regarding their mental health whereas worldwide 10% of new fathers suffer postnatal depression. It was found that there is an association of poor mental health of parents to the poor outcome of children but not always. Various

precipitating factors such as biological, sociocultural and psychological play role making both parents and children vulnerable to poor mental health. **(Mental Health Foundation, 2019)**[3]

Deborah Da Costa, Phyllis Zelkowitz, Kaberi Dasgupta, Maida Sewitch, Ilka Lowensteyn, Rani Cruz, Kelly Hennegan and Samir Khalifé (2017)[4] did the cross-sectional prospective study which was directed towards the prevalence and determinants of the symptoms of depression in the expectant fathers for the first time specially during the third trimester of pregnancy of their wives. The Edinburgh Depression Scale standardized tool was used. Results showed that 13.3% of the expectant fathers revealed depressive symptoms in antenatal period like poorer sleep quality, family history of psychological difficulties, lower perceived social support, poor marital satisfaction, stressful events, financial stressors as well as maternal antenatal depressive symptoms. The above data revealed the urgency to pay attention on the mental health needs of the expectant fathers during this transition phase to parenthood.

Ahmad S., Jaffar A, Osman M (2016)[5] conducted the cross-sectional study to identify the prevalence of psychological distress among the expectant fathers in Malaysia. Total 124 couples were sampled by systematic random sampling within 2-month period in antenatal clinic. Socio-demographic data and by DASS-21 scale data were collected. Results revealed that four-fifth of Malaysian (78.2%), Chinese (14.5%) and Indian (5.6%). More than one third (36.3%) out of 124 expectant fathers were detected to have psychological distress. The prevalence of stress, anxiety and depression were 13.7%, 33.1% and 12.1% respectively. Psychological distress among expectant fathers was significantly associated with maternal depression (p=0.001). First time expectant father was related to depression state (p=0.039). Hence, healthcare providers should take the opportunity to explore emotional and psychological state of the expectant fathers while they accompany their partners for routine antenatal care.

Since paternal mental health is a serious issue which must be taken into consideration, with the limited research available, it's not possible to bring all paternal mental health issues into light. Doing research in this emerging area of paternal mental health, will not only address the paternal issues but it will be an eye opener for the society as well as in field of obstetrics and mental health. That is why, researcher found it as a challenging study in order to sensitize, rebuild and restore the paternal mental health issues which will foster the holistic approach to the pregnant woman and her child as well as the upcoming responsibility for the healthy parenting in Indian Scenario.

PROBLEM STATEMENT

A mixed method study to identify prenatal paternal depression anxiety and stress

among the expectant fathers in selected obstetrics and gynecology OPDs of Indore during the year 2019

OBJECTIVES

- To find out the mental health issues among expectant fathers in prenatal period.
- To determine the association between the level of depression, anxiety and stress and socio-demographic variables.
- To gain deeper insight regarding the mental health issues faced by expectant fathers in the prenatal period.
- To determine the subjective experience of expectant fathers in prenatal period related to mental health problems.

ASSUMPTION

Some of the expectant fathers are facing mental health issues such as, depression, anxiety and stress.

HYPOTHESES

All hypotheses will be tested at the significant level of $p \leq 0.05$.

$H0_1$: There is no statistically significant association in the level of depression occurring in expectant fathers in prenatal period and selected demographic variables.

H_1: There is significant association between selected demographic variables and identified depression occurring in expectant fathers in prenatal period.

$H0_2$: There is no statistically significant association in the anxiety occurring in expectant fathers in prenatal period and selected demographic variables.

H_2: There is significant association between selected demographic variables and identified anxiety occurring in expectant fathers in prenatal period.

$H0_3$: There is no statistically significant association between level of stress occurring in expectant fathers in prenatal period and selected demographic variables.

H_3: There is significant association between selected demographic variables and the level of stress occurring in expectant fathers in prenatal period.

RESEARCH METHODOLOGY

Research Design: Mixed method

Explanatory Sequential Embedded: Quantitative (qualitative)

Settings: Selected obstetrics and gynecology OPDs

Sample: men who are in a transition phase of becoming fathers for the first time

Sampling Technique: Non probability purposive sampling

Tools:

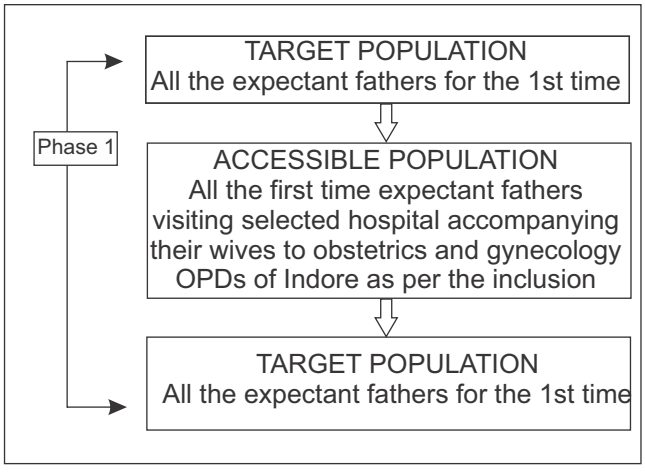
Section A: Socio-Demographic Variables

Section B: DASS-21(DEPRESSION **ANXIETY AND STRESS SCALE-21)**

Section C: Semi-Structured Questionnaire

Research Design: For this study mixed method research design was picked out in which explanatory embedded sequential design was applied in which Quantitative data will be dominant followed up by qualitative data. Nested sampling technique was applied to draw the samples. The analysis of data was done by unification of the data i.e. integrated analysis in which the results of quantitative analysis will be supported by the outcomes in qualitative analysis.

Mixed method is an approach to inquiry that combines or associates both quantitative and qualitative forms of data. It provides researcher, across research disciplines with a rigorous approach to answering research questions. For this study explanatory embedded sequential design was opted in which QUAN is dominant over qual. The data first collected by quantitative means then analyzed and interpreted which will direct the qualitative data collection. Final interpretation is done by merging both the data in which inferences were drawn out on the results obtained in quantitative data in supportive of the qualitative results.



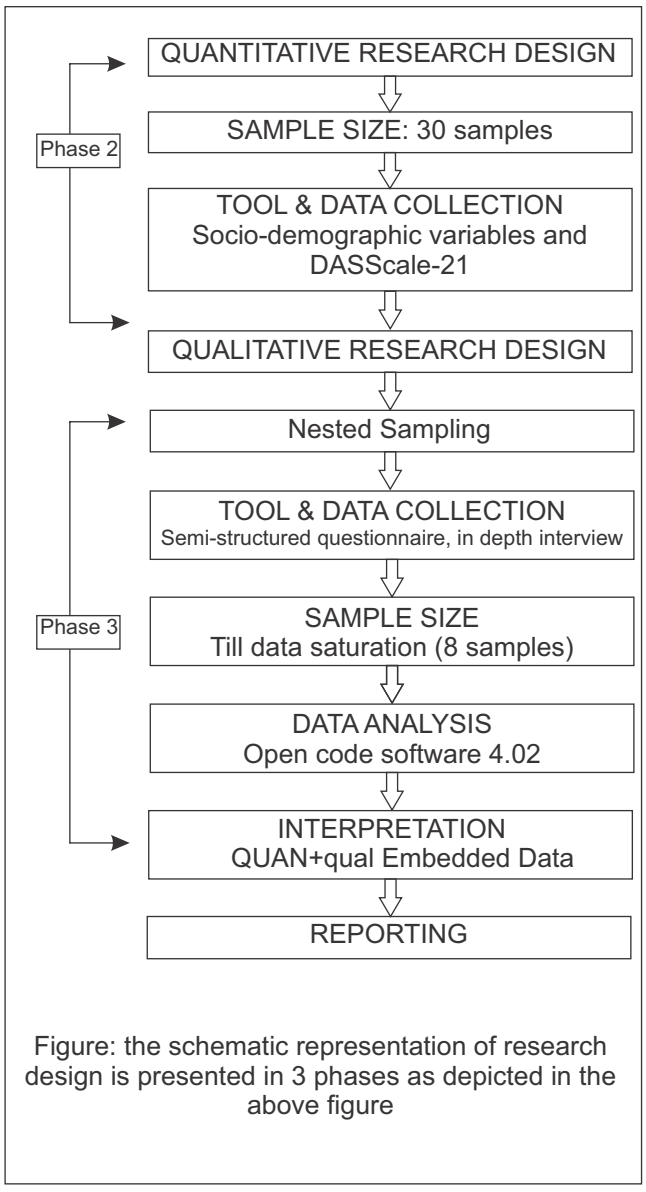


Figure: the schematic representation of research design is presented in 3 phases as depicted in the above figure

Validation and Reliability of the Too: For validation, the tool along with the statement, objectives, operational definitions, criteria checklist, letter of acceptance and certificate for content validity were sent to various experts of psychiatric nursing. The suggestions regarding the relevancy, consistency and sequence for the tool items given by the experts were discussed with the guide and co-guide. For making the tool most appropriate, relevant suggestions were adopted and necessary changes were made.

Reliability of the tool was checked using Cronbach's alpha score rate. The reliability score rates for the scale are as follows depression at 0.91, anxiety at 0.84 and stress at 0.90 in normative sample. The mean and standard deviation for each scale are 6.34 and 6.97 for depression, 10.11 and 7.91 for stress and for anxiety 4.7 and 4.91 respectively. (DASS-21 has been validated in a number of populations such as Hispanic adults, Asians, Americans and British).

Pilot Study: For conducting pilot study, the researcher took permission from the concerned authorities of Medanta super-specialty hospital. While collecting data the purpose of the study was explained to the participants, consent was taken. Tool DASS-21 was administered to 5 expectant fathers visiting along with their expectant wives the obstetrics and gynecology OPDs. Among them from 2 of the expectant fathers, qualitative data was collected.

Date Collection Procedure: Mixed method approach was adopted. The actual data collection period was from 5th August to 10th September 2019. From the designated authorities, permission was taken by the researcher for conducting the study. For quantitative data, 30 samples were drawn by the nested sampling. The objectives and purpose of the study was thoroughly explained and consent was taken from the expectant fathers available in the settings. Standardized depression, anxiety and stress scale-21 was introduced for collecting quantitative data. Almost 3-5min was taken for filling the tool. The data was analyzed which directed the researcher to interview further in order to know in deep the further problems faced by the expectant fathers during this phase.

Qualitative data were collected to build up the quantitative data drawn. For this among the positive cases by nested sampling, samples were drawn. As per the availability and comfort level of the samples in depth interview was done by semi structured questionnaire. Rapport was build up and trust was gained by the researcher. Each and every participant was encouraged to express out the repressed feelings and the areas of concern they are going through during this transition phase. Many factors of stressors and anxiety came up which added more weightage to the study. Qualitative data were collected till the data saturation. The expectant fathers were taught with an aim of gaining insight regarding the importance of developing bonding with baby in the womb from prenatal period, few relaxation exercises, importance of strong bonding and support, communication techniques and importance of counselling. Each and every expectant father who participated was introduced to paternal mental health and its importance. Their cooperation and participation was appreciated.

FINDINGS

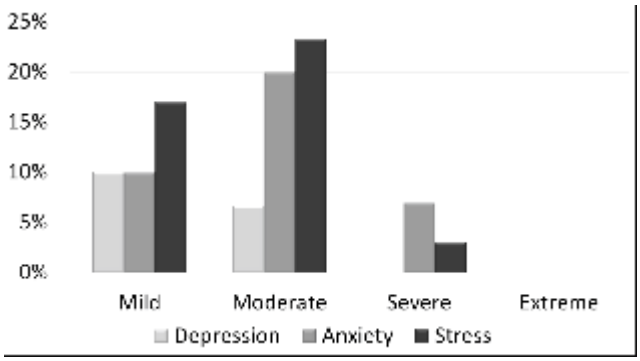
Section I: Socio-demographic variables

In the present study total 30 samples were undertaken. Out of which 8 (26.66%)

expectant fathers belonged to 20-25 years of age group, 15 (50%) to 26-30 years of age group, 6 (20%) to 31-35 years of age and 1 (3.33%) fall in to the category of 36 years or above. Regarding area of residence 23 (76.66%) of expectant fathers were from urban area whereas 7 (23.33%) were from rural area. In context of the educational status 13 (43.33%) expectant fathers had only school education, 10 (33.33%) were graduates and 7 (23.33%) were post graduates. About mother's occupation (their wives) 24 (80%) were housewives and 6 (20%) were working women. In Expectant Father's occupation 20 (66.66%) were doing private job and 10 (33.33%) were having their own business. In terms of the type of pregnancy 21 (70%) were planned and 9 (30%) were unplanned. Out of 30, 7 (23.33%) of the wives were in first trimester, 6 (20%) in second and 17 (56.66) in third trimester. Type of family in which they lived, 12 (40%) nuclear and 18 (60%) in joint family. With reference to family income, 6 (20%) expectant fathers earn ₹≤ 10000, 9 (30%) earn ₹≤ 10001-20000, 1 (3.33%) earn **₹≤ 20001-30000** and 14 (46.66%) earn ₹30001 & above. Regarding years of marriage, 5 (16.66%) were less than 1 year, 24 (80%) were married for 1-3 years 1 (3.33%) 4 years and above. Most of the expectant fathers, 23 (76.66%) were not aware about paternal mental health, whereas, 7 (23.33%) were aware of it.

Section II: Level of depression, anxiety and stress among expectant fathers

Among 30 samples, majority i.e. 25 (83.33%) expectant fathers were normal, whereas, 3 (10%) rated having mild depression & 2 (6.66%) moderate depression, none were rated in severe and extreme severe depression. For anxiety, majority i.e. 19 (63.33%) expectant fathers were normal, whereas, 3 (10%) rated mild anxiety, 6 (20%) moderate anxiety & 2 (6.66%) were having severe anxiety, none were rated in extreme severe anxiety. In terms of stress, majority i.e. 17 (56.66%) expectant fathers were normal whereas 5 (16.66%) rated mild stress, 7 (23.33%) moderate anxiety & 1 (3.33%) was having severe stress. none were rated in extreme severe stress.



Section III: Association between Socio-Demographic Variables and Level Of Depression, Anxiety And Stress Among Expectant Fathers

The chi-square analysis showed that, there is no significant association between the level of depression, anxiety and stress among the expectant fathers between the socio-demographic variables that are age, area of residence, educational status, mother's occupation, father's occupation, type of pregnancy, type of family, trimester, family income, years of marriage and paternal

mental health. Hence all the null hypotheses H_{01}, H_{02} and H_{03} are accepted.

Qualitative Findings Emerged Categories and Themes

On the basis of the analysis of the qualitative data, majorly 4 themes got emerged.

1. The theme **Areas of Concern** is about what kind of feelings; expectation expectant fathers have in their mind which result into stress, anxiety and depression. Pregnancy is the phase that affects different aspects of the lives of expectant fathers. From physical, emotional, psychological and behavioral i.e. a period of holistic change in the lives of fathers. Being the head of the family and upcoming responsibility holder, expectant fathers do have various queries, confusion, their own plans to be prepared, finance expectancy and expectations in their mind. In interviews conducted, it was revealed that fathers expect themselves to be competent enough to uphold the responsibility. They work hard to make sure nothing is left out in rearing and caring of their wives. And the financial stability is the most emphasized point that came up in most of the verbatims. Everything they do with an expectation to be called a good father. But this not only stressed them physically but mentally too.

"yeah, first and foremost thing is the health of the mother, health of my wife so is she taking the right balanced diet which is required the medicine which are required are we going for a regular check up whenever we are called to the hospital the physical condition mental state of the wife and she doesn't feel too much of stress at work or at home. So, all these things we have to take into consideration and we have to always make sure mother is always relaxed."- participant 1

"At this time, finance is the most important thing. during pregnancy and when we do consultation lot of money is needed for example for every consultation at least 1000 rupees we need and rest of the medicines that we take like calcium and all at least if we take the medicine for one month or one and half month it costs nearly about thirteen thousands so in my opinion you should have a plan to at least save the money month wise also and for at the time of delivery also because if it goes in a normal way also then also we require at least fifty thousand for the delivery and all and if it goes by the caesarean way and that's all and that time we require at least one lakh rupees so we have mainly be prepared mentally be prepared and physically be prepared and plus financially also we need to be prepared." - participant 2

2. **Perception of Pregnancy** theme describes the expressed emotions and verbatim of the expectant fathers which they have gone through and going through. Verbalizing the experience of pregnancy from the paternal point of view is very unique. Though fathers had verbalized to be happy and joyful about the phase they are going through but in further interview it was revealed that deep inside they are nervous, fearful and anxious during these nine months. It's a roller coaster experience for them as on one side

there is the positive aspect of pregnancy, on the other side they have to prepare themselves enough from every direction so that they can provide everything to their upcoming baby.

"Ahh! this one, this experience I won't forget in my whole life. Firstly, we were not able to understand what is going on, and we went to doctor. So, showed to doctor that these are the things and the doctor told me that your wife is pregnant after that the test we do I took that test tube I was on my way to house. that was the most excitement means that was the most important thing of life means I cannot forget that means how should I tell my wife that you are pregnant. My wife was also not knowing that she is pregnant ok so these are the things which are very different felt very good the moment you reach home you tell your family that she is pregnant so everyone hugs each other then tell to your wife then she feels good so this is something very different in life it is very different feeling."- participant 1

"I was happy but I was little bit tensed what would be it was like (pause) completely my life would be changed completely after this decision or this period so I was little bit tensed but I was happy. positive outcome of this pregnancy I think I care more about her now"- participant 3

3. The theme **Transitions in this phase** speaks about the change that the expectant fathers are going through. On the basis of the expressed views of the expectant fathers, it can be said the pregnancy will not change the life upside down but an individual himself will definitely change. Fathers verbalized that they found changes in themselves as well as in their relationships and with their partners. Adjustment and adaptation are the most important measures. If healthy measures are taken up, it can lead towards mental wellbeing and if maladaptive measures are undertaken it can lead to poor mental health. Since, there is a lack of awareness towards preparation of fatherhood most of the fathers are unable to cope up effectively with the change. This change leads them towards depression and worries.

"when we got married, it was joyful, it was good, it was like flawless or we can say it we were less responsible but after this decision responsibility changes. responsibilities in terms of mental responsibilities emotionally supportive responsibilities to support her and in terms of career, in terms of remaining mentally calm in terms of family support of course financial support is also there"- participant 4

"Before pregnancy the life was very cool. Priority means 'wife and husband' means I know my priority is my wife so, to give time to wife to do everything for her so, it was like that only means in life there is little relaxation we can go outside anytime, anything we want to do we can take wife also anywhere this happens but after pregnancy everything is in bondage you have to take care of your kid means she is pregnant she cannot travel cannot drive for long time you cannot travel in train bus auto. Doctor said you should not travel in auto so, husband is doing duty for 8 hours then he has to do for 12 hours duty for

wife, like to drop wife and pick her in everything you have to be careful initial 3 months. So, this happens" -participant 6

"before pregnancy, it was more about knowing each other and planning for an overall life building trust but now during pregnancy, it is more about how to cope up with this period how to like help each other during this state and to plan so that we can provide a proper life to the coming baby, which we have." - participant 8

4. Stressors hindering to Mental Health tells about the various hurdles that the expectant fathers face. Unmet physical needs put an impact on the psychological aspects of the expectant fathers. There are many unexpressed and unspoken emotions and views that the expectant fathers keep inside them. Poor support system and lack of communication are the predisposing factors contributing to poor paternal mental health. Outwards appearance and expression is all good but in the inner self there are many conflicts with which they are struggling. Fear of painful delivery is main reason of fear and anxiety expressed in the verbatim of participants. They are very much concerned about it because their sensitive life partners are going to bear the great pain. Such preoccupied stress factors do lead to poor mental health.

"I live single now so I feel restless. we cannot stay together because of her pregnancy. doctor told us not to be together. I feel restless am not at peace I don't feel sleepy but I am ok"- participant 7

"on the negative side is the pain she will be having on areas never felt before, no sex for 9 months no fast food etc. those are on the negative side." -participant 2

"sometimes panic and drying of mouth these all don't usually occur but it is there if stress is there I become little irritated. Irritation and all occur and at that time we forget that wife now is at the critical stage and weak, I usually started fighting with her because I am irritated, and later feel bad"-participant 5

"sometimes I do understand when I get angry or sad for things my wife would do which I don't wish most of the time it's a no. it's just happen spontaneously"- participant 7

Organization of Embedded Data in Mixed Data Analysis

Embedding the **QUAN** data followed up by **qual** data for the final analysis of the study:

THEME EMERGED	AREAS OF CONCERN AS A FATHER
QUANTITATIVE DATA	QUALITATIVE DATA
● In quantitative data analysis it was found that 40% of the expectant fathers felt "it was difficult to relax" Expectant fathers are mostly under stress.	Expectant fathers have expressed their views and concern regarding taking care of their wives. They also struggle to give their best in every possible way so that every need of their wives can be met. From their side, there should not be any lacking. (expectations and preparedness) Finance is the major concern that every father is having which stress them often. (financial aspect)

THEME EMERGED	PERCEPTION OF PREGNANCY
QUANTITATIVE DATA	QUALITATIVE DATA
Expectant fathers are very much emotional and worried regarding the phase they are going through. In quantitative analysis, it was revealed that 60% replied "I tended to over-react to situations" applicable on them to some degree whereas 76.66% replied did not apply to me at all for the item "I felt I was close to panic". For the item "I felt rather touchy", 40% answered it is applied to them to some degree whereas 30% to considerable degree on the scale.	While expressing their experience of being expectant fathers they were overwhelmed. They were going through a mixed state of being glad and anticipation. (expressed emotions) Verbalizing their experiences regarding this phase of pregnancy revealed that expectant fathers have become more emotional, caring and protective towards their wife and for the upcoming baby.

THEME EMERGED	TRANSITIONS IN THIS PHASE
QUANTITATIVE DATA	QUALITATIVE DATA
In quantitative data for the stress item "I found it hard to wind down", 43.33% to some degree. whereas for "I was intolerant of anything that kept me from getting on with what I was doing" 33.33% expectant fathers answered to considerable degree. Expectant fathers tend to experience positive feelings in relationship. "I couldn't seem to experience any positive feeling at all" 56.66% replied to not apply to me at all.	There are many changes have come in the lives of expectant fathers which they experience in themselves. Some changes make them more tired and stressed out. (as an individual) Relationship and bonding between the partners have been enhanced with the upcoming responsibility which they are bearing with positivity for the fruitful outcome. (in relationship)

THEME EMERGED	STRESSORS HINDERING TO MENTAL HEALTH
QUANTITATIVE DATA	QUALITATIVE DATA
Item for depression are majorly answered on the tool. For "I felt that I had nothing to look forward" to 46.66% mark to some degree, for "I felt down hearted and blue" 43.33% replied to some degree. 53.3% answer to some degree for the anxiety item i.e. "I was worried about situations in which I might panic" and 33.33% for stress item i.e. "I felt that I was using a lot of nervous energy to some degree".	There are many hindering factors which are hidden. Usually expectant fathers prefer to keep their issues and problems restricted to themselves. (hidden emotions and lack of communication) Painful delivery is one of the major stressful cause that make expectant fathers worried as well as anxious. (fear of pain)

DISCUSSION

Socio-demographic variables of the expectant fathers

As per the analysis of the quantitative data majority i.e. 15(30%) of expectant fathers belonged to age group of 26-30 years whereas 8(26.66%) to 20-25 years. Majority of expectant fathers are residing in urban area 23 (76.66%). About 13(43.3%) fathers did their schooling and on the other side 10(33.33%) did their graduation. Most of their wives were housewives 24(80%). Majority of the expectant fathers are doing private job 20(66.66%). Nearly 21(70%) of pregnancies were planned and 9 (30%) were unplanned. Most of the wives were in third trimester of pregnancy (56.66), 7(23.33%) in first trimester and 6(20%) in second. About 18 (60%) lived in joint family. Regarding family income 14

(46.66%) earned ₹30001 & above and 9 (30%) earned ₹≤ 10001-20000. About 4 (80%) were married for 1-3 years . Most of the expectant fathers, 23 (76.66%) were not aware about paternal mental health, whereas 7 (23.33%) were aware of it.

The above mentioned findings are supported by the study conducted by **Y.W.Koh (2015)[6],** who did a longitudinal study for examining prevalence of paternal anxiety and risk factors in perinatal period in Hong Kong. Total 622 expectant fathers participated in the study. For the measurement of the risk factors following demographic variables undertaken in the study were age, educational level, parity, family income. For psychological risk factors following attributes were studied planned/ unplanned pregnancy, social support, self-esteem and work family conflict, marital satisfaction and partner's mental health. Results revealed that majority 310(51.3%) belonged to age group of 26-34 years and 275 (45.5%) were above 35 years, 411(67.7%) wives were were primi-gravida i.e. they are first time expectant fathers, in educational status 260(41.9%) did secondary level. Regarding family income 349(58.0%) were earning above 30,000 and most of the pregnancies 115 (34.12%) were planned. It was concluded that there is significant proportion of anxiety experienced by the expectant fathers in perinatal period. low self-esteem, poor social support and work family conflict are some of the risk factors that are reflected through this study

Level of Depression, Anxiety & Stress of Expectant Fathers

The results revealed by the present study on the DASS-21 scale rating, majority of the expectant fathers out of 30 are having moderate stress 7(23.33%) whereas, 5(16.66%) are under mild stress. On anxiety scale 6(20%) reported moderate anxiety, 3 (10%) mild anxiety and 2 (6.66%) severe anxiety. On the depression scale 3 (10%) rated mild depression & 2 (6.66%) moderate depression. Overall stress and anxiety among expectant fathers are more prevalent when compared to depression.

Anthony P. O'Brien(2016)[7] did a systemic review which revealed that more than 10% of the fathers are facing depression and anxiety in the perinatal period which affects the relationship as well as the health of their spouse. Another study by **Rischard J Fletcher (2006)[8]** addressed that there was increased identification of the depression and anxiety among fathers in the perinatal period, around 50% of the fathers will be under distress if the mother that is their spouse is under distress. It has also been verbalized in the present study that the expectant fathers are over concerned and worried regarding the health of their wives. They want their wives to be healthy. Anything happen to them can result in distress among expectant fathers.

Areas of Concern as a Father

Among all expectant fathers, there are some of the areas of concern they keep in their mind during this phase. Majority of the participants in this study verbalized their concern over

their financial situation. Though most of them are earning above >30000/- Rs monthly, but still from the expectation point of view to provide everything to their child they strive for earning more. Secondly to be mentally, physically and financially prepared for both normal and operational delivery is key concern verbalized by the expectant fathers in their interviews. In **World Crypto News (2019)**[9] it was mentioned that there is more than 70% of financial stress among the pre-natal parents during the 12 months in comparison 45% of the parents who are already having a child. Main expectation is to provide best of everything to their pregnant wives and to be called a good Dad in future. They don't want to let their child to go through the struggles they had already been through. Particularly they don't have a choice gender wise only to be called a responsible father.

Celeste A. Lemay (2010)[10] did a qualitative study for understanding the meaning of fatherhood. Around 47% verbalized that being employed and education completion would make them good father, whereas, 77% believed nurturing their own child according to themselves not as their father did. Themes emerged were the availability, to be supportive, to be a role model, education completion.

Perception of Pregnancy

Perception of pregnancy describes the way expectant fathers expressed their experience regarding pregnancy. All of the expectant fathers expressed that it is a memorable moment with happiness and joy that they are becoming fathers. They felt themselves competent enough to take up the responsibility of the upcoming baby. But there are still loop holes because physically expectant fathers are not able to feel about pregnancy. They can only express in few words of excitement, joy, happy etc. **Logan G. (2015)**[11] wrote in an article that there is a great difference between the reactions of men and women. As they are not able to see bump, feel kick., they are left out with imaginations, expectations, fears and anxieties. They surround themselves with adorable image, upcoming responsibility of fatherhood, analyzing their finance and unfamiliar changes in lifestyles. No physical changes in their wives' body during first trimester may make them disappointing and frustrating.

Transition in this Phase

Development is the process of life. Pregnancy is one of the event of life which can be included in maturational crisis because it's a phase of great change which includes mixed feelings and emotions. Change is experienced by the expectant fathers in themselves as well as in their relationship and family atmosphere. Expectant fathers have expressed that they have become more responsible caring and concerned towards their pregnant wives. But as an individual change in daily routine and changes in sexuality make them little irritable. Overthinking lead them to have negative thoughts, depressed mood and anxious. **Johansson (2015)**[12] did a longitudinal study with mixed method approach for exploring the experience of fathers and pregnancy related changes. 871 Swedish participants took part in

the study. Results revealed that emotional changes shift from 60% in mid pregnancy to 47% in late pregnancy. Changes experienced by the fathers put both positive and negative impact on the mental health, emotional responsibility and reflection of fatherhood. In physical aspect change in the sexual relationship was experienced. Hence expectant fathers are prone to go through both physical and mental changes during the phase of pregnancy.

Stressors Hindering the Mental Health

All expectant fathers in their verbatims have expressed some or the other kind of psychological, emotional and behavioral changes that make them stressed out. Some of the hindering factors that came up were the unmet needs of the expectant fathers specially their sexual life. According Maslow's Hierarchy in love and belongingness, sex is one of the need which is to be met. It's obvious abstinence for 9 months may result in some kind of restlessness. In our society males are supposed to be strong pillars and head of the family, but actually they are also humans who do have hidden emotions. Usually they don't express much because it is not expected by our society for a male gender to be an emotional one. Here they lack in communication and the burden deep inside them which do not get ventilated out may result in poor mental health. Fear of painful delivery is one of the factor which they are worried about. **Sharin Baldwin (2019)**[13] did qualitative exploratory study with an aim to explore the experiences and mental health and wellbeing needs of the first time fathers. Mainly nine themes got emerged theses are preparation for fatherhood, rollercoaster of feelings, new identity, challenges and impact, what fathers want, barriers to accessing support, men's perceived needs, coping and support, changed relationship. It was concluded that there is a need of healthcare policy makers, service providers and professionals to prepare the perinatal and early years' services for both the new parents.

CONCLUSION

By thorough analysis of the data gathered by the researcher, it can be concluded that the knot of stress, anxiety and depression has already been tied around the neck of expectant fathers. Paternal mental health (PMH) must be prioritized as many factors have been reflected from this study that can result into the poor mental health of the fathers.

The findings revealed that stress and anxiety are the most prevalent and common among the expectant fathers. Mostly the fathers revealed depressive symptoms and rated under depression. For getting more clear picture regarding the experience and the problems faced by the expectant fathers, in depth interviews were conducted with an aim to gain deeper understanding regarding the conflicts they are going through. Hence mixed method approach was adopted by the researcher i.e. the quantitative data which is numerical one have been supported by the qualitative data which were expressed by the participants in order to draw authentic

research findings which do have weightage. Expectant fathers do have areas of concern, their own perception to see the phase of pregnancy, the transitions in the atmosphere, behavior, relationship they go through and the stressors which can hinder their mental health. These factors not only effect their mental health but also the physical health. Although no significant association was found between the findings and socio-demographic variables taken in this study, may be because of small sample size but researcher recommend that unplanned pregnancy, social support, financial status, age, low self-esteem and work family conflicts can be the contributing factors which need to be further researched.

Though, Paternal Mental Health has been till now the neglected or under searched area but researcher truly feels that it must be studied in depth. Not only this study motivated the researcher to study the undervalued area of health sector but also made to gain deeper understanding regarding the experience of expectant fathers. This study provided opportunity to the researcher and the participants to talk on the issues of Paternal Mental health and helped the participants to gain insight regarding it. There must be a need to bring the educational booklet, programs, therapies and counselling sessions for the expectant fathers too for preparation of the upcoming fathers so that they can withstand with the maturational crisis and with good mental health they may be able to welcome the new happiness in their lives.

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What does this study convey?

From being a man to a father is the toughest developmental milestone faced by men psychologically. Fatherhood is having a chain of very tough psychological tasks not of a man's own conflicts but also considering his own issues as a father, negotiable roles like to be a support for others, others dependency on him etc. New Dads do experience paternal depression and perinatal anxiety and distress but tend to seek help of their own because they won't admit such can happen to them.

Who will use these findings?

The findings of this study are not only helpful for the professionals and researchers but also for the readers, as it gives a thought about keeping up the mental health and understanding its significance during various transitional phases of life.

How can the findings be put into practice?

Bringing the health care system and public system together is the best possible way that can be done. Combined workshops on preparation of both mother and father for those planning to become parents. A continuous efforts to bring awareness, educating the professionals and common public will help all to grow towards high level of wellness.

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A PRE-EXPERIMENTAL STUDY TO ASSESS THE EFFECETIVENESS OF VIDEO ASSISTED TEACHING ON HEALTHY FOOD PRACTICES DURING PRENATAL AND POSTNATAL PERIOD, AMONG PREGNANT WOMEN

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Abstract

Eating nutritionally balanced food during pregnancy is very essential. In India, dietary habits of pregnant women are highly influenced by food fads, cultural taboos, customs and religious beliefs. Very minimum data is available on the dietary intake of pregnant and postpartum nutritional practices in India. Pregnancy is an active anabolic state characterized by a series of small adjustments whose purpose is to allow growth and development of the fetus while maintaining maternal homeostasis and preparing for breast feeding. The demand for both energy and nutrients is increased during pregnancy. These adjustments relate to changes in maternal behaviour and affect the metabolism of all nutrients. This depends primarily on the nutritional status of the mother before conception and explain its ability to adapt to various nutritional situations. So a pre-experimental study to assess the effectiveness of video assisted teaching on healthy food practices in prenatal and postnatal period among pregnant women in selected rural areas of Jabalpur, M.P was carried out to see the outcomes. After the detailed analysis, this study's results showed : The mean post-test knowledge score(23.5) is higher than the mean pre-test knowledge score (17.5) . By applied paired t-test the calculated t-value (2.565653) is more than the table value (1.984) at the level of 0.05%, which shows video assisted teaching program regarding healthy food practices of prenatal and postnatal period among pregnant women in selected rural areas is effective. There is association between pretest knowledge of people regarding healthy food practices of prenatal and postnatal period among pregnant women in selected rural areas with selected demographic variables is statistically tested by applying chi-square test. The variable educational status of pregnant women, educational status of husband, occupation, previous source of information in prenatal period, previous source of information in postnatal period was found significant. Therefore, it is concluded that video assisted teaching is effective for increasing the knowledge regarding healthy food practices among pregnant women in rural areas and understanding taboos in food habits will make a difference and thus it will prevent the malnutrition among pregnant mothers and in their newborns.

Keywords: Taboos(social customs),malnutrition(lack of healthy diet)

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BACKGROUND

Hippocrates wrote of the health value of certain foods, yet, food fads of various kinds have persisted ever since. According to Indian Ayurvedic system of medicine many foods are reputed to have curative properties for some diseases (Aman 1969). For example, Bitter guard is reputed to cure diabetes mellitus, Yoghurt, wheat germ, black strap molasses, brewer's yeast and honey have been widely promoted by some food experts as possessing extra ordinary nutritional and medicinal qualities. Fruits and vegetables cultivated using organic manure are believed to possess greater nutritive value than foods grown with inorganic fertilizers. Brown sugar is refuted to possess higher nutritive value than white sugar.**(Aman 1969)**

Ariboflavinosis due to deficiency of riboflavin is common among the population whose staple diet is rice, seen predominantly in the eastern and southern parts of the country. Pellagra due to niacin deficiency is more in the population (Telangana region of Andhra Pradesh) whose staple diet is maize or jowar. This occurs because of the amino acid imbalance caused by excess leucine among jowar and maize eaters. The high concentration of molybdenum in jowar facilitates retention of fluoride in the body, and thereby, may increase the severity of fluorosis among the population whose staple diet is jowar than in the population whose staple diet is rice, especially in an endemic fluoride belt.(**Kaliaperumal Karthikeyan2002)**

NEED OF THE STUDY: India has probably the highest prevalence of nutritional anaemia in women and children, about one half of non pregnant women & young children are estimated to suffer from anaemia. 60 to 80 % pregnant women are anaemic, 19 % of maternal deaths are attributed to anaemia. According to **National Family Health Survey (2005-06) 3**, about 57.9% women are anaemic of which 54.6 % are in urban areas & 59 % in rural areas. The survey also shows that the incidence of anaemia in children aged 6-35 months is 79.2% with 72.7% in urban areas & 81.2 % in rural areas. By far the most frequent cause of anaemia is Iron deficiency and less frequently folate & Vitamin B12 deficiency.

Malnutrition is the most widespread condition affecting the health of children. Scarcity of suitable foods, lack of purchasing power of the family as well as traditional beliefs & taboos about what the baby should eat, often lead to an insufficient balanced diet, resulting in malnutrition. A -childhood morality study showed that no less than 50% of the children who died before the age of 5 years were found to have malnutrition as under lying or associated cause of death the peak of this morality being in the post neonatal period. During **2000-2007** more than 25 % of the world's children under the age of 5 years were under weight for their age. The proportion ranged from 1.0% of children in developed countries to 26 % in developing countries. (**World Health Organization 2007)**

LITERATURE REVIEW: Gamuchirai Chakona (2019) conducted the study where a well-nourished and healthy population is a central tenet of sustainable development. In South Africa, cultural beliefs and food taboos followed by some pregnant women influence their food consumption, which impacts the health of mothers and children during pregnancy and immediately afterwards. It documented food taboos and beliefs amongst pregnant isiXhosa women from five communities in the Kat River Valley, South Africa. A mixed-methods approach was used, which was comprised of questionnaire interviews with 224 women and nine focus group discussions with 94 participants. Overall, 37% of the women reported one or more food practices shaped by local cultural taboos or beliefs. The most commonly avoided foods were meat products, fish, potatoes, fruits, beans, eggs, butternut and pumpkin, which are rich in essential micronutrients, protein and carbohydrates. Most foods were avoided for reasons associated with pregnancy outcome, labour and to avoid an undesirable body form for the baby. Some pregnant women consumed herbal decoctions for strengthening pregnancy, facilitating labour and overall health of both themselves and the foetus. Most learnt of the taboos and practices from their own mothers or grandmothers, but there was also knowledge transmission in social groups. Some pregnant women in the study may be considered nutritionally vulnerable due to the likelihood of decreased intake of nutrient-rich foods resulting from cultural beliefs and food taboos against some nutritious foods. Encouraging such women to adopt a healthy diet with more protein-rich foods, vegetables and fruits would significantly improve maternal nutrition and children's nutrition. Adhering to culturally appropriate nutrition may be an important care practice for many pregnant women in the Kat River Valley

E Sulistyowati (2018) conducted a study where nutrition for pregnant women is one of the most essential factors that influence the outcomes of maternal and infant. Pregnant women can gain nutrition information from many sources including consultation with health professionals. However, some studies showed that mothers received nutrition information during pregnancy and the evidence regarding the nutrition advice for pregnant women is limited. A literature review was conducted to identify the nutrition information received by mothers during antenatal period. This review included qualitative and quantitative studies which concern in the nutrition advice during pregnancy and the strategy used by health practitioners to provide information about pregnancy nutrition in the antenatal care. This review produced seven studies included qualitative and quantitative research. Generally, women were not receiving adequate nutrition education during pregnancy. Health practitioners in the developing countries use counselling during antenatal care to provide information about

nutrition for pregnant women, while in the developed countries, health professionals prefer to use online and social media. The evidence of healthcare professionals in providing nutrition information for pregnant women is limited. Nutrition counselling and online media were identified as effective tools in promoting a healthy diet and supplementation for pregnant women within some population groups. Further studies about health practitioners' strategies in providing nutrition education during antenatal care are highly recommended.

K Shrestha (2014) A descriptive study on food practice among postnatal mothers in a hilly township in northeastern Nepal was carried out with 50 mothers (aged 20-39 years) of different ethnic groups (Adibasi-Janajati: 46.0%, Bahun/ Chhetri: 34.0% and Dalit 20.0%). Findings show that this township was representative of a rural area in northeastern Nepal in terms of demographic characteristics like mixed ethnic composition, high illiteracy rate (especially among women), joint family structure in majority of the households (80% of the total participants) and agriculture as the more common occupation (44% of the total participants). It was seen that various factors are responsible for affecting food practices of mothers during the postnatal period in this region. Socio-cultural beliefs are contributory to the food practices followed, like the frequency(n) of meals/day eaten by the mothers. Other factors that affected were: Lower economic status of the family (33% of Dalit women and 50% of women who work as laborers were only eating meals two times a day); Support from the family (75% of women living in joint families were eating meals four times a day while women living in nuclear families were eating meals three times a day); It also showed more attention and care was given to younger, first-time mothers (younger mothers who were mostly first-time mothers were eating meals four times a day while experienced and older mothers were eating meals three times a day). The study also showed that there are food taboos surrounding specific food items, which were not consumed from 11 days to six months after delivery based on various socio-cultural beliefs and practices.

PROBLEM STATEMENT

A pre-experimental study to assess the effectiveness of video assisted teaching on healthy food practices during prenatal and postnatal period among pregnant women in selected rural areas of Jabalpur, M.P

OBJECTIVES

1. a) Assess the pretest knowledge scores of pregnant women on healthy food practices in prenatal period among pregnant women in rural areas.

   b)Assess the pretest knowledge scores of pregnant women on healthy food practices in postnatal period among pregnant women in rural areas.

2. a) Assess the posttest knowledge scores of pregnant women on healthy food

practices in prenatal period among pregnant women in rural areas.

b) Assess the posttest knowledge scores of pregnant women on healthy food practices in postnatal period among pregnant women in rural areas.

3. a) Assess the effectiveness of video assisted teaching on healthy food practices in prenatal period among pregnant women in rural areas

   b) Assess the effectiveness of video assisted teaching on healthy food practices in postnatal period among pregnant women in rural areas.

5. Assess the significant association of prenatal pretest knowledge score with demographic variables.

HYPOTHESIS

(All hypotheses will be tested at 0.05 significant level)

H_1: There is significant mean difference in pretest and posttest knowledge score in prenatal period among pregnant women in rural areas

H_2: There is significant mean difference in pretest and posttest knowledge score in postnatal period among pregnant women in rural areas

H_3: There is significant association between demographic variables and pretest knowledge scores in prenatal period among pregnant women in rural areas.

RESEARCH METHODOLOGY:

Research approach -The research approach adopted for this study is quantitative and evaluative approach.

Research design -In the present study, the investigator selected Pre experimental one group pre-test post-test design

One group pre-test and post-test research design.

O_1 X O_2

O_1:- Pre- test knowledge score

X : Video assisted teaching regarding healthy food habits

O_2 :- Post- test knowledge score

Setting of the study: This study was conducted in selected rural areas Panager of Jabalpur (MP).

Population : Population was pregnant women in rural areas.

Target Population: The target population for the study includes pregnant women of 1st and 2nd gravida of Panager.

Accessible Population: The population for the study includes pregnant women of 1st and 2nd gravida in selected rural areas of Jabalpur city (M.P).

Sample size:The total sample size of present study consists of 60 pregnant women in selected rural areas of Jabalpur city who met the inclusion criteria .

Sampling technique: Non probability - Purposive sampling technique is used for study.

Development of the tool : The tools used in this study were:

1) Section A: Deals with socio-demographic data of pregnant women

2) Section B: Clinical variables.

3) Section D: Knowledge questionnaire on healthy food practices

Pilot Study: Pilot study was conducted in rural area Shahpura, Jabalpur (MP). A total of 10 samples were taken for the study. 2 days session was conducted .On the 1st day pre experimental test was conducted with the help of questionnaires and evaluation was done. Then on the next day video assisted teaching programme was given to the pregnant women and after the intervention post test was done to see the difference in their knowledge. 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 Procedure: The data collection for the main study was done at Panager ,Madhya Pradesh. Permission was taken from BMO of CHC. A total of 60 samples through Non probability - Purposive sampling technique was used for study. Data collection was done from 15thFebruary to 19thFebruary On the 1st day pre experimental test was conducted with the help of questionnaires and evaluation was done. Then on the next day video assisted teaching programme was given to the pregnant women and after the intervention post test was done to see the difference in their knowledge. The data obtained were analyzed in term of the objective and hypothesis using descriptive and inferential statics.

FINDINGS

Demographic and clinical profile: Out of the 60 women enrolled for the study, 21(35%) were in the age group of 26-30 years. 34 (56,6%) of women and almost equal number of their husbands had attained up to secondary and higher secondary level of education. 58.3% of them were living in joint and extended families. 78.3% were Hindus. Main occupation of husbands was farming and farm laborers. And 68% of the women were home makers. Clinical Profile: 36 (60%) of the women had Hb >10gm% during pregnancy, most had average weight gain during pregnancy. 46 (76.6%) of the women had normal vaginal delivery and one third (20) had initiated breast feeding of their baby within 2 hours of birth and only 20 (33%) gave exclusive breast feeding to their babies for 4 months.

Section II: Analysis of the data related to Pre test knowledge score regarding healthy food practices of prenatal period and postnatal period among pregnant women in rural areas.

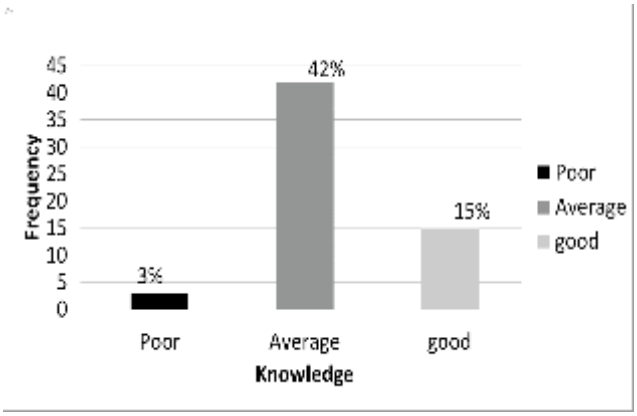

Fig. No 01- Bargraph depicting Pretest knowledge score

The data given in the above figure shows that out of 60 samples the majority of 42 (70%) have average knowledge and only 15(25%) have good knowledge and 3% had poor knowledge.

Section-II: Analysis of the data related to Post knowledge score regarding healthy food practices of postnatal period among pregnant women in rural areas.

Table No.1: Frequency(n) and percentage distribution of Post test knowledge of the mother (N=60)

Criteria	Frequency(n)	%	Mean	SD
Poor	0	0	23.52	2.6
Average	11	18.3%		
Good	49	81.6%		

The data given in the table shows that out of 60 subjects in the sample size the majority of 49 (81.6%) have good knowledge and 11 (18.3%) have average knowledge.

Section III: Effectiveness of video assisted teaching program regarding healthy food practices of prenatal period and postnatal period among pregnant women in rural areas.

Table No-2: Mean, SD, df, t -value showing effectiveness of knowledge of the mother N=60

Test	Mean	SD	t-value
Pretest	17.5	4.13	2.565653*
Posttest	23.52	2.60	

(df=118 , table value =1.98027)

The above table No.2 depicted the effectiveness of knowledge of video assisted teaching program regarding healthy food practices among pregnant women at the level of 0.05 level of significance. The calculated df is 118. In this case the calculated value 2.565653 which is greater than table value 1.980272 so the result is significant.

Section IV: Association of pretest knowledge of mother with selected demographic variables

The findings revealed that the association between knowledge of pregnant women regarding healthy food practices of prenatal

and postnatal period in selected rural area with demographic variables is statistically tested by applying chi-square test. The variable educational status of pregnant women (15.25), educational status of husband (16.63), occupation (9.92), previous source of information (10.42) in prenatal period, previous source of information in postnatal period (12.96) was found significant. Other variables like age, religion were not significant.

DISCUSSION

Association of pretest knowledge score of prenatal and postnatal period among pregnant women with demographic variables.

The findings of the present study are supported by a study conducted by **Juliana Araujo Teixeira 2018**.The choice of the socio-demographic and lifestyle factors that could influence the dietary pattern of pregnant women. The Dietary pattern of 454 women were investigated by principal component factor analysis, using dietary information from a validated 110-item food frequency(n) questionnaire. Multiple linear regression models identified independent associations between DPs and maternal socio-demographic characteristics and Spearman's correlation determined associations between DPs and nutrients intake. Participants' mean age was 26.1 years (standard deviation = 6.3), 10.3% had more than 8 years of formal education, 30% were migrants from outside of the Southeast of Brazil, 48% were employed, 13% were smokers, and 51% were overweight/obese. Findings from this study add perspectives to be considered in the implementation of health interventions, which could improve women's nutritional status and provide an adequate environment for the developing fetus.

CONCLUSION

The study leads to the conclusion that health education can change the perspective of mothers related to the diet during pregnancy and in turn can bring better outcomes.

Acknowledgement: It is with gratitude that I wish to acknowledge all those who have enriched and crystallized my study. My sincere gratitude to my guide and co-guide and participants of this study.

Source of Funding: Self.

Conflict of Interest: None.

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What does this study convey?

Health is a consequence of an individual's lifestyle as well as a factor in determining it. Every one of us, have our own beliefs and practices concerning health and disease irrespective of the area of residence (whether residing in urban or rural areas). Not all cultural practices are harmful. Some of these practices like adequate nutrition, good sleep, regular physical exercise etc are based on centuries of trial and error and have positive values. Achievement of optimum health demands adoption of healthy lifestyles by the pregnant women.

Who will use these findings?

The results will bring the change in the nutritional status of pregnant women and the healthy offspring will result into better future aspects. Rural areas women will get education and regain knowledge regarding the myths and certainty.

How can the findings be put into practice?

Nursing administrators in academics should take an initiative in creating policies or plans to provide video assisted teaching regarding use of the various methods of study in nursing colleges. Nursing students can give education in their community during their visits in rural areas and educate the pregnant women about healthy and proper nutrition.

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EFFECT OF SIMULATION-BASED TRAINING TO IMPROVE ANMs CLINICAL COMPETENCY IN MANAGING OBSTETRIC EMERGENCIES

*** Rincy Mathew,**Jaideep Herbert**

Abstract

Obstetrical emergencies, if not managed timely and properly become the major cause of maternal morbidity and mortality. Mortality related to Pre eclampsia / eclampsia and post partum haemorrhage can be prevented with swift diagnosis and effective management. Inadequate staff training was identified as the most common cause of adverse events in obstetric (OB) emergencies.

Simulation is widely used in Aviation and other industries and has gained increasing popularity in the area of Health Care Education. In hospital settings, simulated experiences provide the health care providers with the opportunity to be involved in realistic patient care experiences they may otherwise not experience in actual clinical settings. As a teaching methodology, simulation experience is an active event in which students are immersed into a realistic clinical environment.

Simulation-Based Training (SBT) of delivery room teams in the management of obstetric emergencies, such as in eclamptic parturient or postpartum haemorrhage has shown to improve clinical performance and reduce the incidence of medical negligence. Additionally, simulation-based training has been associated with improved neonatal outcomes and improved performance during postpartum haemorrhage. There is a plethora of evidence supporting the use of SBT specifically in the management of Obstetric emergencies.

The present study is based on the Simulation Based Training that was introduced to Auxiliary Nurse Midwives(ANMs) from various hospitals of Delhi NCR region working in maternity units, at Vidyanta Skills Institute, a clinical simulation center, with the objective to evaluate the effectiveness of Simulation-Based Training program on the level of their clinical competencies in the management of obstetric emergencies. Methodology: A quantitative quasi-experimental design was adopted for the study. By convenient sampling 44 ANMs who were working in maternity wards and labour rooms were selected. Pre and Post OSCE checklist was designed for clinical competency assessment which consisted of 11 Skill stations and according to the performance criteria participants were evaluated. The training program was conducted in three phases. Results showed pre test score-32.6%, post test scores 86.1% and improvement score was found to be 53.5%. The ANMs had achieved a high level of competency in managing obstetrical emergencies (preeclampsia, eclampsia and PPH). Participants appreciated the scenario based simulation method of training in comparison to their previous experience of class room teachings.

Key Words: Simulation Based Training, Obstetrical Emergencies, ANMs.

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BACKGROUND

Hypertensive disorders of pregnancy, including preeclampsia and eclampsia (PE/E), are the second leading cause of maternal death in women under age 35. Mortality related to Pre eclampsia / eclampsia can be prevented with swift diagnosis, effective management, and timely delivery . However, evidence-based interventions are sparsely implemented in many low- and middle-income country settings, leading to poor outcomes for both mothers and neonates.

Pregnancy with complications is considered abnormal and harmful to pregnant women and foetuses. Therefore, the nurses' knowledge and skills in taking care of these patients is important. Simulation is widely used in many industries and has gained increasing popularity in the area of Health Care Education. In hospital settings, simulated experiences provide the health care providers with the opportunity to be involved in realistic patient care experiences they may otherwise not experience in actual clinical settings.

These patient situations may be of low frequency or high impact cases or complications like pre-eclampsia, eclampsia, and postpartum haemorrhage in Labour and Delivery Units (LDU) of Maternity hospitals.

Preeclampsia and eclampsia are associated with high morbidity and mortality rates, which can be greatly influenced by proactive and competent nursing care. The infrequent occurrence of these emergencies provides limited exposure for nurses to remain highly skilled and effective.

As a teaching methodology, simulation experience is an active event in which students are immersed into a realistic clinical environment.

The objective is to create situations that are as similar to real life as possible. Depending on closeness to reality, simulation can be either low or high fidelity, or a combination of both. This is crucial in linking didactic content to a simulated clinical environment (Shields and Veile, 2009). A recent literature review identified ample evidence supporting the use of simulation-based training in the management of medical education especially when related to the medical emergencies. The most prominent benefits of such training according to the review were on the improvement of knowledge gained, skill performance, team coordination, and retention of the competency by the participants. However the same review indicated the weakness of evidence on the effect of simulation training on the patient's clinical outcomes and also the need for more robust clinical trials investigating the effectiveness of the simulation training (Fransen et al., 2015).

LDU is one of the vital units in the hospital where the management of obstetric (OB) emergencies of women in labour, neonates and postpartum mothers is critical and requires special expertise. The issue of mismanagement of OB emergencies is a

worldwide concern. Inadequate staff training was identified as the most common cause of adverse events affecting the management of these emergencies. Although fortunately uncommon, life-threatening obstetric emergencies require skill and prompt action. Training and refreshment programs are, therefore, a common practice need in LDUs.

However, despite these active educational programs (using traditional teaching strategies), there were a number of reported mismanaged events related to substandard care practices. As such, given the international evidence supporting the benefits of simulated training in these situations and in various medical emergencies, educators identified the LDU as a potential priority area for the provision of simulation based training on obstetric emergency situations.

For example, simulation-based training of delivery room teams in the management of obstetric emergencies, such as in eclamptic parturient or postpartum haemorrhage has shown to improve clinical performance and reduce the incidence of medical negligence . Additionally, simulation-based training has been associated with improved neonatal outcomes and improved performance during postpartum haemorrhage.

In healthcare as such, the childbirth process is affected by culture which in turn is affected by religion, race, economic status, level of education and environmental factors. Within the cultural context most women prefer to be treated by female healthcare practitioners especially during pregnancy and delivery. To this end the role of the midwives has been considered crucial and has expanded to fill the gap when female doctors are not readily available. To support this expanded role for midwives, they must be trained and provided with the needed competencies, especially those related to management of emergency situations.

The majority of the nursing and medical staff within the health system is recruited from all over the world with variable qualifications, different training backgrounds, and different skill sets . There are no statistics available on the skill level of providers attending childbirth, however, for the purposes of this study it should be noted the requirement for employment of midwives, nurse-midwives and nurses is specialty certification and at least 2 years recent clinical experience in obstetric/ perinatal nursing care. Generally there is scarcity of official academic training programs for midwives to their specialized roles. Therefore, up-skilling these staff depends mainly on the professional development programs offered within the workplace settings. Robust professional training programs are very important.

Need of the Study and Literature Review

In India, annual incidence of about 1.30 million (95% CI 1.26-1.35 million) maternal deaths occurred between 1997 and 2020, with about **23 800 (95% CI 21 700-26 000)** in 2020, with most occurring in poorer states (63%) and among women aged 20-29 years (58%).In

2020, neonatal mortality rate for India was **20.3 deaths per thousand live births**. In 2019, the infant mortality rate in India was at about **28.3 deaths per 1,000 live births**.

Inadequate staff training was identified as the most common cause of adverse events in obstetric (OB) emergencies. There is a plethora of evidence supporting the use of simulation-based training (SBT) specifically in the management of Obstetric emergencies.

A review of the evidence evaluating the effectiveness of Simulation based training in the management of Obstetric emergencies indicates that Simulation based training is associated with improvement in staff skills, patient safety, and quality of care. Life-threatening Obstetric emergencies are not frequent but require skill and prompt action. Simulation Training of delivery room teams in the management of OB emergencies could improve clinical performance and reduce incidence of medical negligence.

Encarna Hernández (2021) conducted a Clinical Simulation Training Study in obstetrics that has turned out to be a tool that can reduce the rate of perinatal morbidity and mortality. The quasi-experimental research study was structured in three phases: the first phase where the most important obstetric emergencies were determined, the second phase of design and development of the selected cases for simulation training, and the third and final phase where the abilities and satisfaction of the multidisciplinary team were analyzed. Three scenarios and their respective evaluation tools of obstetric emergencies were selected for simulation training: postpartum haemorrhage, shoulder dystocia, and breech delivery. The health professionals significantly improved their skills after training, and were highly satisfied with the simulation experience ($p < 0.05$). An inter-observer agreement between good and excellent reliability was obtained. In conclusion, it was stated that high-fidelity obstetric emergency simulation training improved the competencies of the health professionals.

Dr. Shannon Fernandes (2020), a prospective study was conducted in the simulation centre of a private medical college on 45 final year nursing students posted in OBG dept., selected by convenience sampling. 4 obstetric emergency scenarios, namely, eclampsia, shoulder dystocia, cord prolapse and PPH were created on the maternal fetal birthing manikin. After allocating roles for the scenario, each scenario was run for all the teams followed by debriefing. Finally a post-test and feedback form was filled to assess simulation as a teaching learning method and to evaluate the satisfaction of the students towards simulation. Result: Standard deviation(mean) for pretest scores was lowest for cord prolapse module and highest for PPH module. Standard deviation (mean) for post test scores was lowest for shoulder dystocia module and highest for eclampsia module. There was a significant increase in post test scores in all the modules except for the Post Partum Haemorrhage module where there

was no difference. The opinion of the students about their simulation experiences were examined and suggestions which came forth were accepted. The use of high-fidelity simulation to train nursing students in obstetric emergencies has greater satisfaction scores, provides and improves student's clinical reasoning, knowledge and skills. Hence, simulation teaching needs to be incorporated in the regular curriculum.

Eman Mohamed Abd Elhakm (2018) conducted a quasi-experimental study in the Clinical Obstetric Skill lab of Faculty of Nursing, Benha University. A convenient sample of a total 65 maternity nurses who were working at Obstetrical and Gynaecological Emergency Department at Benha University Hospital.Three tools were used for collecting data; 1) A structured interviewing questionnaire; it includes two parts socio demographic data and assessment of maternity nurses' knowledge regarding primary postpartum haemorrhage. 2) Maternity nurses' practice observational checklist. 3) Modified Self-confidence measurement Scale. Results: The result of the study proved that about two thirds (61.5%) of the studied maternity nurses were aged less than 30 years with mean age of 29.6±7.62 years moreover the majority of them (86.2 %) had less than 10 years of experience. It also indicates that the highest percentage (89.2%) of them hadn't previous simulation training program regarding PPH. Additionally, they studied that maternity nurses had poor level of knowledge, unsatisfactory performance and low confident level of self-confidence mean score regarding management of PPH before simulation training (64.6%, 78.5%, 69.2%) respectively. Yet, after the simulation training the nurses' knowledge, performance and self-confidence were significantly improved Hypotheses of the current study were accepted. Simulation based training had a highly significant effect on improvement nurses' performance (knowledge & practice) and self-confidence regarding management of primary post-partum haemorrhage. Simulation based training programs should be provided for all obstetrics health caregivers to help them to play an active role in obstetric emergencies.

Naina Kumar (2016) conducted a prospective study in the Obstetrics Gynaecology department of the rural tertiary centre of Northern India. Twenty postgraduate students were randomly divided into two groups for simulation teaching / didactic lecture on PPH management. Analytic Data included pre and post lecture multiple choice questionnaire (MCQ), post-lecture Direct Observation of Procedural Skills (DOPS) assessment. Finally, a feedback survey of students was conducted to assess perceptions about two modalities of teaching. Both groups showed no difference in pre-lecture MCQ results. Comparison of DOPS performance showed significant difference (p=0.0026) between two groups with mean marks 5.10 ± 1.10 in Group 1, 3.40 ± 0.84 in

Group 2. Significant improvement was observed in post-lecture compared to pre-lecture marks in both groups (mean difference- Group 1: 7.60 ± 1.26, Group 2: 4.20 ±1.01), with greater improvement among simulation groups. Students rated simulation better with regard to interest (70%), enjoyment (75%), topic (70%), understanding (80%), posing questions (75%).Simulation teaching was reported more effective in imparting skills for PPH management compared to didactic lecture.

The present study is based on the Simulation based training that was introduced to Auxillary nurse and midwives from various hospitals of Delhi NCR region working in maternity units, at Vidyanta Skills Institute, a clinical simulation center. To mandate for the establishment of this simulation based training program is to utilize simulation training to improve health care training and professional development, and also to conduct studies to establish the effectiveness of simulation training strategy in healthcare field.

The simulation training center was chosen to implement the simulation training programs due to the significant increase in the incidence of maternal and neonatal morbidity and mortality related directly to mismanagement of obstetric emergencies. In maternity care, most maternal deaths occur during the intrapartum period and most complications cannot be predicted. Timely diagnosis and appropriate response require considerable skill to prevent deaths.

OBJECTIVE

- To evaluate the effectiveness of Simulation-Based Training program on the level of Auxiliary Nurses and Midwive's clinical competencies in the management of obstetric emergencies

METHODOLOGY

Research approach and design- A quantitative quasi-experimental methodology was used for this study to measure the effect of simulation-based training program in obstetric emergencies on Auxiliary Nurses and Midwives's clinical competencies in managing these emergencies.

Population: ANMs from various hospitals of Delhi NCR region working in maternity units (Labour Room, Maternity Wards and Obstetrics OT) were included in this study.

Sampling Technique: Convenience sampling was used to include the maximum number of ANM due to small population size.

Sample size: The total number of ANM were 44

Setting: This study was conducted in Vidyanta clinical simulation center, Gurgaon.

Tool: Pre and Post OSCE checklist was designed for clinical competency assessment which consisted of 11 Skill stations and according to the performance criteria nurses were evaluated.

The scoring was categorized into 3

Performance criteria	Scoring
Performed	1 mark
Performed with remediation	0.75 mark
Not performed	0

Interventions: Simulation-Based Training Program

The mandate for the establishment of this Simulation based training program is to utilize simulation training to improve health care training and professional development, and also to conduct studies to establish the effectiveness of simulation training strategies in the healthcare field. The Simulated labs as unit was chosen to implement the simulation training programs as it is equipped with necessary infrastructure. Need was felt to conduct it due to the significant increase in the incidence of maternal and neonatal morbidity and mortality related directly to mismanagement of obstetric emergencies. This simulation based training program was designed to cover 3 priority obstetric emergencies experienced at our facility: , pre eclampsia, eclampsia, postpartum haemorrhage.

An interventional study was conducted in the simulation centre on ANM's. 3 obstetric emergencies scenarios, namely, pre-eclampsia, eclampsia and post-partum haemorrhage were created in the simulated environment with the labour room and ward set up with the various types of birthing simulators, mother and infant simulators, real equipment and consumables. The nurses were divided into 3 batches. Each individual ANM was given an opportunity to perform all 3 scenarios. On the day of the session, the students were given a pre-test to assess the baseline understanding of the concepts related to the topic. This was followed by pre-briefing where the students were given a brief history of patient details. Next, each individual ANM was asked to allocate roles for the scenario. Each scenario was run for all the individual nurses. This was followed by debriefing where the students and facilitators sat together to reflect on the actions taken during the scenario. The final step was a post-test and closure where a take home message was given and a feedback form was asked to be filled to assess simulation as a teaching learning method and also to evaluate the satisfaction of the students towards simulation.

FINDINGS

Section I: Frequency and percentage of the Pre-test, Post and Improvement level

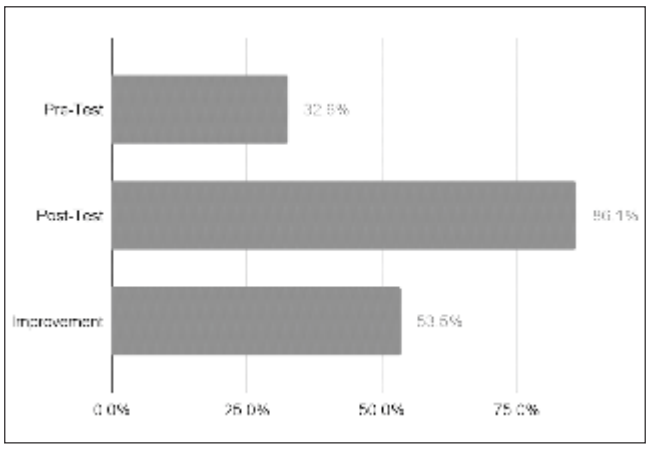

Fig.No.1: Bar graph depicting the percentage of Pre and Post test, and Improvement level

The findings in the above figure No.01 depicts the Pre-test score as 32.6%, post test score as 86.1% and improvement to be as 53.5%.

DISCUSSION

Simulation based training program had been found to be effective in managing emergency situations. Training on practical skills, such as management of obstetric emergencies such as: pre eclampsia, eclampsia and postpartum haemorrhage have been found to improve the ability of the nurses to implement the acquired clinical skills effectively; Simulation training is a valuable method to improve maternity nurses performance skills and competency for saving the women's health outcomes who are deteriorating from obstetric complications.

The present study revealed that the ANMs have achieved higher levels of competency. Thus, improving their ability to provide safe and effective quality care. The increased competency has the potential to reduce related complications and mortality. The aim of this study was to evaluate the effectiveness of simulation training program on the level of Auxillary Nurse Midwive's clinical competency in management of obstetric emergencies. In recent years there has been plethora of literature recommending the adoption of simulation-based training for healthcare professionals. The willingness to adapt to simulation based training was triggered by an increasing awareness that the current traditional methodology of teaching & learning is less efficient than what is clinically required. Teaching nurses to be competent in clinical skills and practice is a major goal for in-service professional development programs.

CONCLUSION

Obstetric emergency simulation based training improved the competencies of Auxiliary nurse midwives in a safe and effective manner. In the study the training needs of the ANMs in 3 obstetrical emergencies namely, pre-eclampsia, eclampsia, and Post-partum haemorrhage, were considered. Pre and Post OSCE skill assessment checklist was created for the evaluation of competencies of professionals related to obstetric emergencies.

The design of the scenario-based training was prepared to meet the objectives of the training needs of participants. This design allowed for a structured and a safe obstetric simulation training. The level of the competencies of the Auxiliary nurse midwives significantly increased after the intervention.

To get the confidence of students in performing clinical skills during the training period may be challenging due to many factors, therefore the nursing institutions should adopt teaching learning methodology of “Simulation-Based Training” in all those areas where efficient clinical skills are important in life saving situations such as obstetrical emergencies. The clinical instructors of nursing colleges also must learn

the techniques of delivery of simulation-based training and prepare competent and skilled nurses without compromising in clinical training for any reason.

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ASSESS THE RISK FACTORS OF CORONARY ARTERY DISEASE AMONG INDUSTRIAL EMPLOYEES AT SELECTED INDUSTRIES OF INDORE

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Abstract

Coronary Artery Disease (CAD) is the most common type of heart disease. Globally, CAD is the leading cause of death and is predicted to remain so for the next 20 years. The present study was conducted to assess coronary artery risk factors and knowledge among industrial employees. A total of 100 samples were selected as the participants through non-probability purposive sampling technique. Consent for the participation was taken from the participants and data were collected by using cardiovascular risk profile and knowledge assessment questionnaire. Findings of the study revealed that 6% of the participants were consuming ≤100 ml. oil/week, 21% were consuming 101-200 ml. oil/week, 38% were consuming 201-300 ml. oil/week and 35% of the participants were consuming >300 ml. oil/week. 20% of the participants had habit of adding extra salt while having a meal. 45% of the participants consumed fried items regularly and 26% consumed fried items occasionally. 13% of the participants were not consuming any fresh fruits and salad in their regular diet. 56% agreed that they don't do any physical exercise. 21% elicited that they consume alcohol occasionally, 5% of the subjects revealed that they consume alcohol weekly and 4% consume alcohol monthly. 1% of the subject were consuming alcohol for last <5 year, more than half (16%) of the subjects consume alcohol for last 5-10 years, 6% consume alcohol for last 11-15 years and 7% of the subjects consume alcohol for ≥16 years. Age was identified as a risk factor among all the 100% of the participants. 63% of the participants had raised BMI. Total cholesterol was identified as a risk factor among 38% of the participants. HDL was at risk in 55% of the participants. High blood pressure was found in 74% of the participants. 17% of the participants were diabetic. 16% of the participants had family history of coronary artery disease .study concluded that most cardiovascular diseases can be prevented by addressing behavioral risk factors. People with cardiovascular disease or who are at high risk due to the presence of one or more risk factors need early detection and management using counseling and medicines, as appropriate.

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BACKGROUND

CVDs are the number one cause of death globally: more people die annually from CVDs than from any other cause. An estimated 17.7 million people died from CVDs in 2015, representing 31% of all global deaths. Of these deaths, an estimated 7.4 million were due to coronary heart disease and 6.7 million were due to stroke. Over three quarters of CVD deaths take place in low- and middle-income countries. Out of the 17 million premature deaths (under the age of 70) due to non-communicable diseases in 2015, 82% are in low- and middle-income countries, and 37% are caused by CVDs. **(WHO 2017)**[1]

A descriptive exploratory research design was conducted to assess the risk factors of coronary artery disease among employees in selected educational institutes of Pune city. The study was conducted on 60 samples. The study was conducted in five selected educational institutes of Pune city. The samples were teachers between the age group of 40 to 60 years with total sample size of 60. The study was based on simple random sampling technique. The data was collected by using semi- structured questionnaire and the analysis was done by using descriptive and inferential statistics. The study findings reveal maximum no of teachers were in a mild risk (62%), many of them in moderate risk (28%), and none of them were in a sever risk of getting coronary artery diseases. **(Ms. Manisha Shrikant Gaikwad, Pune, India, 2011)**[2]

CHD is a major cause of death and disability in developed countries. CHD mortality results from CAD. The list of non-communicable diseases is becoming larger and more complex. Rapid globalization, urbanization, ageing of society, and an increase in chronic diseases possess new challenges to modern health care systems. CVD is preventable, but physical inactivity, nicotine abuse and bad nutrition practices (loss of traditional diet habits in new- industrial cultures) are leading to an increase of prevalence in most countries. The 2016 Heart Disease and Stroke Statistics update of the American Heart Association (AHA) has recently reported that 15.5 million persons ≥20 years of age in the USA have CHD, whilst the reported prevalence increases with age for both women and men and it has been estimated that approximately every 42 seconds, an American will suffer for an MI. Further, social inequalities increase CVD mortality and negative lifestyle influences such as increased physical inactivity in more "obesogenic" environment are reverting the improvements in CVD data that were obtained in some countries. **(Fabian Sanchis-Gomar, Carme Perez Quilis, Roman Leischik, Alejandro Lucia, 2016)**[3]

Need of the Study & Literature Review:

A cross sectional study was conducted by H R

Shivaramakrishna, H.N. Sangolli on bank employees of Belgium city Karnataka for assessing risk factors of coronary heart disease. The main objective of the study was to estimate the prevalence of risk factors of CHD and to assess the knowledge regarding risk factors of CHD among bank employees. The study was conducted on 300 samples. Results of the study revealed prevalence of risk factors of CHD were: Hypertension 31%, Diabetes 21%, High serum total cholesterol 29%, High triglycerides 39%, High LDL cholesterol 19.3%, Low HDL cholesterol 17.7%, smoking 26%, sedentary habits 44%, positive family history 12%, overweight/ obesity (BMI≥ 25 kg/m2) 33% and 26% of the study subjects had truncal obesity. Among these, 55% of the study subjects had at least two of these risk factors. The study showed a disturbing burden of CAD risk factors in the study population. So, awareness regarding risk factors of CHD should be created in the bank employees. **(H.R. Shivaramakrishna, H.N. Sangolli 2008)**[4]

According to World Heart Association 2015, heart disease in India, is on its way to becoming an epidemic in the country. Latest statistics suggest that in India, there are roughly 30 million heart patients and two lakh surgeries are being performed every year. Of the 30 million heart patients in India, 14 million reside in urban areas and 16 million in rural areas. By the year 2020, the burden of atherothrombotic cardiovascular diseases in India will surpass that of any other country in the world. **(World Heart Association 2015)**[5]

An article was published in Nature, reviews cardiology, stating Global populations are undergoing a major epidemiological transition in which the burden of atherosclerotic cardiovascular diseases is shifting rapidly from high-income to low-income and middle-income countries. Greater focus is now required on the prevention and management of this disease in less-advantaged countries. Factors such as poverty, industrialization, and infection might conceivably influence the development of CAD in such settings, the ageing of the population and increase in traditional cardiovascular risk factors, such as smoking, diabetes mellitus, and hypertension, are likely to be the main driving forces. **(F. Gerry R. Fowkes, Victor Aboyans, Freya J. I. Fowkes, Mary M. McDermott, Uchechukwu K. A. Sampson& Michael H. Criqui, 2016)**[6]

An article was published in International Journal of Hypertension; a systematic search for articles published between 1980 and August 2015 was undertaken using major databases. A total of 55 articles involving 34,919 different cadres of workers from six countries were retrieved. The prevalence of hypertension ranged from 11.2% to 68.9% in male workers compared with 0% to 43.5% in female workers. Obesity, as reported by 16

studies, ranged from 25.6% among pharmaceutical industry workers to 97.7% among Senegalese workers of an information technology (IT) company. The prevalence of hypertension ranged from 27.9% to 78.6% among obese subjects compared with 7.3% to 65.4% in non-obese subjects. The prevalence of hypertension was significantly higher among those with low physical activity compared with those with moderate or intense physical activity. Workers whose jobs were physically demanding such as automobile workers, mill operators, and plantation workers appeared to have a lower prevalence of hypertension than those whose jobs were largely sedentary such as traders, office executives and civil servants. Hypertension was significantly more frequent in alcohol drinkers than in abstainers. The prevalence was higher in medium and heavy drinkers than in nondrinkers and light drinkers. Socioeconomic status was assessed using salary grades or, as a proxy, staff ranking or educational attainment. Hypertension was more common in workers with higher salary grades than in those with lower salary grades. It was more common in senior staff than in junior staff. There was clustering of cardiovascular risk factors. Out of 1,229 telecommunication workers screened in Senegal, 341 (27.7%) had one cardiovascular risk factor, 632 (51.4%) had two risk factors, and 256 (20.8%) had three or more risk factors. Seven percent of those diagnosed with hypertension had a moderate Framingham risk score while 18% were found to be at a high risk of a cardiovascular event. Nearly three-quarters of hypertensive telecommunication workers in Rome were assessed to have high (32.0%) or very high (41.8%) risk of cardiovascular event. Measures to reduce mean BP and hypertension should include population-wide and worksite strategies to reduce dietary salt intake and other risk behaviours, reduce stress, improve physical activity, and increase knowledge of workers about cardiovascular health. **(William K. Bosu, 2015)**[7]

PROBLEM STATEMENT

An exploratory study to assess the risk factors of coronary artery disease among industrial employees in selected industries of Indore in the year 2017.

OBJECTIVES

- To assess the risk factors of coronary artery disease among employees in selected industrial area in Indore city.
- To assess the knowledge regarding risk factors of coronary artery disease among industrial employees.
- To associate the selected variables with the risk factors of coronary artery disease among employees.

- To prepare an informational booklet to educate the industrial employees.

HYPOTHESIS

H1:- There is significant association between the knowledge level and the selected socio-demographic variables at the level p≤0.05 among industrial employees.

H2:- There is significant association between risk and selected socio-demographic variable at the level p≤0.05 among industrial employees.

H3:- There is significant association between the risk factors of coronary artery disease and the selected demographic variables at the level p≤0.05 among industrial employees.

RESEARCH METHODOLOGY

Research Design: An exploratory research design

Population: In the present study, population is the industrial employees.

Sampling technique: Non probability sampling technique

Sample size: 100

Setting: VE Commercial Industries Pvt. Ltd., Pithampur, Indore (M.P)

Tool: The tool for the collection of data for this study consisted of three sections.

Section A- Socio- Demographic Variables and Personal History

First section consisted of a structured interview schedule to collect baseline data, which consist of 28 items for obtaining information about selected factors such as age, sex, religion, marital status, Educational status, family income and Personal history (Use of tobacco, alcohol, stress, physical activity, dietary pattern)

Section B- Cardiovascular Risk Profile (JBS3)

This section of the tool comprised of 18 items namely, Date of birth, Sex, Ethnic group, Height, Weight, BMI, Smoking habit, Total Cholesterol, HDL Cholesterol, Systolic Blood pressure, Treatment of Blood Pressure, History of Diabetes, History of CVD, history of chronic kidney Disease, History of Atrial Fibrillation, History of Rheumatoid Arthritis.

Section C-Knowledge Assessment Questionnaire

This section comprised of knowledge assessment questionnaire. It has 18 items to measure the knowledge level regarding cardiovascular disease, preventive strategies and dietary aspects. The scoring of the tool was done as 0-6 (Poor), 7-12 (Average) and 13-18 (Good).

Pilot Study: The predominant objectives of the 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 pilot study was conducted in a private industry, Pithampur, Indore. The investigator obtained the written permission from the concerned authority and consent was taken from participant who fulfilled the inclusion criteria. A total of 10 samples were selected as participants through purposive sampling technique & data collection was done.

Ethical Consideration: Written permission was obtained to conduct the study from the administrative authorities of the institutions.

The procedure and the purpose of the study was explained in detail to each participant included in the study.

Informed consent was obtained stating that they have the liberty to ask questions or refuse to participate in the study.

Confidentiality was maintained by assigning code to each subject.

Procedure for Data Collection: Written permission was obtained from the administrative authority of VE Commercial Vehicle Ltd. (A Volvo group and Eicher Motors joint Venture) Indore prior to the data collection. A total 100 samples were selected as participants through convenient sampling technique who met the inclusion criteria. The actual data collection period was from 1st July 2017 to 15th July 2017. The study was carried out in the same way as that of the pilot study. Consent was taken from all the samples and confidentiality was assured. An average 5-8 samples were interviewed every day using the structured Cardiovascular Risk Profile and Knowledge Assessment Questionnaire. The average time taken for each sample was 15-20 minutes. The cholesterol level was considered as per the previous reports of the samples. The researcher terminated the data collection process by thanking the respondents for their cooperation and participation.

FINDINGS

SECTION I: Risk score among Industrial employees

Table no.1: Frequency and percentage distribution of Risk score among Industrial employees (N=100)

Risk for CVD Expressed in %	No. Of Samples Who Are At Risk
<10% (Low)	64
10-19.9% (Mild)	26
20-29.9% (Moderate)	6
≥30% (High)	4

Data presented in Table No.1 shows the frequency distribution of risk score for coronary artery disease among industrial employees expressed in percentage calculated through the structured interview

schedule and Joint British Societies for the prevention of cardiovascular disease (JBS3) risk calculator. 64 (64%) participants were at <10% risk (Low), 26 participants were at 10-19.9% (Mild) risk, 6 participants were at 20-29.9% (Moderate) risk and 4 participants were at ≥30% (High) risk

Section II: Risk Factors identified among Industrial employees

Table No.2: Frequency and percentage distribution of Risk factors identified among Industrial employees (N=100)

Risk Factors Identified	% Distribution
Age	100
Family history of CAD	16
Cholesterol levels	
Total Cholesterol	38
HDL	55
Diabetes	17
High Blood Pressure	24
Raised BMI	63

Data presented in Table No. 2 reveals the risk factors explored by the investigator among industrial employees. Age was identified as risk factor among all the 100% of the participants. 16% of the participants had family history of coronary artery disease among their close relatives. Total cholesterol was distinguished as risk factor among 38% of the participants. HDL was at risk in 55% of the participants. 17% of the participants were diabetic. High blood pressure was seen in 24% of the samples. 63% of the participants had raised BMI.

Section III: Chi square value showing association between risk score and selected socio demographic variables among industrial employees (N=100)

There was significant association between the risk score and selected socio demographic variable (age) of industrial employees **(at df_6 x^2 value = 47.97 and table value= 12.59).** Therefore,H2 that there is significant association between risk score and selected socio demographic variables among industrial employees at the level p≤0.05 for which H1 is accepted but there was no significant association between risk score and selected socio demographic variables (gender, religion) which reject hypothesis H2

Section IV: Chi square value showing association between cardiac risk factor (High Blood Pressure) and selected socio demographic variables among industrial employees

The findings revealed that there was significant association between the risk factor (High Blood Pressure) and selected socio demographic variable (age) of industrial employees **(at df_6 x^2 value = 15.79 and table value= 12.59). Therefore,** H2 that there is

significant association between risk factors and selected socio demographic variables among industrial employees at the level p≤0.05 for which H2 is accepted but there was no significant association between risk factor (High Blood Pressure) and selected socio demographic variables (gender, religion) which reject hypothesis H2.

DISCUSSION

Association between the knowledge level and the selected demographic variables among industrial employees

Findings of the present study showed that there is significant association between the knowledge level and selected socio-demographic variables (Educational Status) among industrial employees at level p≤0.05. Thus research hypothesis H1 is accepted.

The above finding was supported by a cross-sectional survey of 206 academic and non academic staff of Ladoke Akintola University of Technology, Ogbomoso, Nigeria using the Heart Disease Fact Questionnaire (HDFQ). The mean age of the study participants was 45.3 ± 7.9 years. There were 96 males (46.6%). The mean HDFQ score was 48.6%. Only 41 (19.9%) of participants were assessed to have good knowledge of heart disease risk factors. Majority, 101 (49.0%) had poor knowledge while 64 (31.2%) had fair knowledge of heart disease risk factors. There was no significant difference between prevalence of CV risk factors between those with good or fair or low level of knowledge. Most participants did not have a good level of knowledge about risk factors, prevention, treatment and association with diabetes as it relates to heart diseases. Effective education on heart disease risk factors and appropriate preventive strategies are indeed important to reduce cardiovascular disease burden**. (Adeseye Abiodun Akintunde,2015)**[8]

Association between risk score and selected socio-demographic variables among industrial employees

Findings of the present study showed that there is significant association between risk score and selected socio-demographic variables (age) among industrial employees at level p≤0.05. Thus research hypothesis H2 is accepted.

The above finding was supported by a study done by Riyaz S Patel, Catherine Lagord. Between February and July 2015, user data collected from the NHS Choices website, where the tool was hosted, were analyzed anonymously using standard analytic packages. The online tool landing page was viewed 1.4 million times in the first 5 months, with increased activity following limited media coverage. Of the 575 782 users completing the data journey with a valid 'heart age' result, their demographic and risk factor profiles broadly resembled the population of England,

although both younger users and males (60%) were over- represented. Almost 50% and 79% did not know or enter their blood pressure or total cholesterol values, respectively. Estimated heart age was higher than chronological age for 79% of all users, and also for 69% of younger users under 40 years who are at low 10-year risk and not invited for NHS Health Checks. These data suggest a high level of public interest in self-assessment of cardiovascular risk when an easily understood metric is used, although a large number of users lack awareness of their own risk factors. The heart age tool was accessed by a group not easily reached by conventional approaches yet is at high cardiovascular risk and would benefit most from early and sustained risk reduction. These are both important opportunities for interventions to educate and empower the public to manage better their cardiovascular risk and promote population-level prevention**. (Riyaz S Patel, Catherine Lagord, 2015)**[9]

Association between risk factors and selected socio-demographic variables among industrial employees

Findings of the present study showed that there is significant association between the risk factors of coronary artery disease (Blood pressure, Diabetes) and the selected socio-demographic variables (age) at the level $p \leq 0.05$ among industrial employees. Thus research hypothesis H3 is accepted.

The above findings were supported by a study done by Bernard M.Y. Cheung, Nelson M.S. Wat. They studied the association between raised blood pressure and dysglycemia in 1,862 subjects in the Hong Kong Cardiovascular Risk Factor Prevalence Study cohort. They determined the factors predicting the development of diabetes and hypertension in 1,496 subjects who did not have either condition at baseline. Study revealed that Diabetes and hypertension were both related to age, obesity indexes, blood pressure, glucose, HDL cholesterol, and triglycerides. Of subjects with diabetes, 58% had raised blood pressure. Of subjects with hypertension, 56% had dysglycemia. BMI and blood glucose 2 h after a 75-g oral glucose load were independent predictors of new-onset diabetes. Age, systolic blood pressure, and 2-h glucose were independent predictors of new-onset hypertension. BMI, systolic blood pressure, and 2-h glucose were independent predictors of the development of diabetes and hypertension together. **(Bernard M.Y. Cheung, Nelson M.S. Wat,2008)**[10]

CONCLUSION

As coronary artery disease is growing as significant problem in developing countries, prevention is the most effective measure to combat this killer disease, especially in resource poor nations. Thus identifying knowledge regarding preventive measures

has utmost importance to bring change in health behavior of people.

The study results revealed that industrial employees have detrimental eating habits, poor physical activity, and unhealthy habits such as smoking, drinking and tobacco chewing. Few of the employees do have a family history of cardiovascular disease. The risk factors identified by the investigator are explained here: It was apparently revealed that knowledge level regarding coronary artery disease was good in employees but it was seen that in spite of having the good knowledge they were following the bad habits like eating fried items regularly, consumption of too much oil in their food items, smoking and chewing of tobacco and drinking of alcohol.

Appropriate health education to increase awareness about heart disease risk factors remains the fulcrum of preventing increased cardiovascular risk among industrial employees. Industrial administrators should design and implement massive, cost-effective long term health education for industrial employees to prevent cardiovascular morbidity and mortality among them in the nearest future.

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Conflict of interest: None

Sources of funding: Self

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What does this study convey?

The findings of the study indicate that the industrial employees are at risk of developing coronary artery disease. Early identification of the risk factors among industrial employees may help in prevention of coronary artery disease. Screening programs can be conducted among industries to rule out the risk factors. Nurses need to conduct regular health screening of employees especially with regards to coronary artery risk factors such as high BP, abnormal BMI measurements. Health education is needed for employees as knowledge regarding coronary artery risk factors and their prevention is lacking. Proper awareness will always help in risk reduction and control of developing CADs among employees. They can be encouraged to have proper health check ups at least twice a year which may be helpful in identifying risk factors. Unhealthy food habits have been recognized by the researcher among majority of the subjects. Thus, nurse as advocates of health promotion can conduct awareness camps, general clinics to make them conscious about proper food habits, importance of exercise, etc.

Who will use these findings?

The findings of this study will assist nurses at various levels as they can guide which may help in alleviating the risk for developing CADs in the future among industrial employees as they are the functional unit of an industry. Ongoing in-service education programs for nursing personnel should be in place regarding assessment of coronary artery risk factors in industrial employees and their related education. As nurse educators they can develop special skills among employees, identify the risk factors and give appropriate guidance.

How can the findings be put into practice?

The findings of the present study have its maximum implication in the nursing practice. Nurses work as modification agents in the community, thus play a key role in coordinating and conducting health programs aiming especially to eliminate or reduce the risk factors contributing to the development of coronary artery disease among populations. An informational booklet can be prepared in the regional language and can be distributed among industrial employees. A 'Nurse-led NCD Clinic' can be set up in industrial area for health checkup for regular screening and follow up.

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10) https://pubmed.ncbi.nlm.nih.gov/18556342/

EFFECTIVENESS OF HEALTH AWARENESS PROGRAMME REGARDING ACUPRESSURE ON DYSMENORRHIC PAIN AMONG ADOLESCENT GIRLS STUDYING IN HIGHER SECONDARY SCHOOLS IN SELECTED COMMUNITY AREAS OF JABALPUR

*** Vandita Jain**Prof. Dr.Vinitha Suresh*** Princey Shaji**

Abstract

Acupressure can be adopted as nursing interventions to alleviate dysmenorrhic pain, improve productivity, creativity, work performance and quality of life. It is a healing act using the fingers to skillfully press the points which stimulate the body's natural pain relief, and self-creative abilities. A study was conducted to evaluate the effectiveness of health awareness programme regarding acupressure on dysmenorrhic pain among adolescent girls studying in higher secondary schools in selected community areas of Jabalpur. The research approach adopted for this study was a pre- experimental quantitative and evaluative. Pre- experimental one group pre-test and post test design was used. The sample consisted of 60 adolescent girls (14-17 year), who were available at the time of study. Non probability purposive sampling method was used for the selection of samples. The instrument for the data collection was WaLIDD score (dysmenorrhic pain scale). The data obtained was analyzed by using descriptive and inferential statistics in terms of frequency, percentage, mean, standard deviation, paired t- test and chi square test. The study shows that mean post test knowledge score (22.96) is higher than the mean pretest knowledge score (15.45) and pre test SD (1.21) is higher than post test SD(1.89). The difference between pre-test and post-test knowledge is statistically tested by applying t-test method at the level of 0.05%. In this case the calculated (df value is 118) t-value 4.474 is more than the table value (1.984). There was no significant association found between pretest knowledge score of participants regarding acupressure on dysmenorrhic pain among adolescent girls with selected demographic variables statistically tested by applying chi-square test except the variables age.

Keywords: Effectiveness, Dysmenorrhic, WaLIDD scale, adolescent girls

BACKGROUND

India has one of the fastest growing youth population in the world, with an estimated 190 million adolescents. Girls below 19 years of age are comprising 21% of India's

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total population. In India, 67.2% adolescent girls suffer from dysmenorrhea and 60% of them have disrupted daily routines. Dysmenorrhea is painful menstruation which leads to a significant discomfort among adolescents. It is the leading cause of school absenteeism among adolescent girls. A study conducted in USA showed that 58% of girls suffered from severe menstrual flow. The consequences of untreated dysmenorrhea range from lots of work and study disruption. Therefore, dysmenorrhea affects not only the untreated person but also affects family, social and national economics as well. Kiran et.al did a prospective cross sectional study to assess the prevalence and severity of dysmenorrhea in medical and nursing students. 401students from SRM University Chennai and 97 students from Vydehi Institute of Medical Sciences and Research Center, Bangalore were selected. Among Chennai students prevalence of dysmenorrhea was found to be 76.30%. 57.1% had severe and 19.20% had mild dysmenorrhea.In Bangalore 73.19% had severe and 26.80% had mild dysmenorrhea **Kiran B et al (2012)**

Need of the Study & Literature Review

Dysmenorrhea has been the most common gynecological problem worldwide. Reports of dysmenorrhea are greatest among individuals in their late teens and 20s and usually declining with age. It has also been reported that dysmenorrhea affects more than 80% of women in the reproductive age. The study objective was to examine the predictors of dysmenorrhea, its effect, and coping mechanisms among adolescents in Shai Osudoku District, Ghana. They conducted a cross-sectional study in September and November 2017 in selected schools in Shai Osudoku District, Ghana. Employed self-administered questionnaire to obtain data from adolescents who volunteered to participate in the study. The data were analyzed using the SPSS programme IBM version 20. The Pearson chi-square test and multiple logistic regression analysis to assess the association between exposure variables and the outcome variable were used. The odds ratio was reported to establish the risk of dysmenorrhea at a confidence interval of 95%, and statistical significance was assumed at . Results: The prevalence of dysmenorrhea was 68.1% (95% CI, 65.072.0) with one-third recounting their pain as severe. The pain during menstruation negatively influenced the daily physical activities (22.5%), school attendance (6.9%), concentration during class hours (27.9%), and academic performance (31.1%) as reported by the respondents. Besides, adolescents who do not live with their parent experienced a 53.1% increase in odds of self-reporting dysmenorrhea (AOR, 1.53 (95% CI, 1.022.23)). Similarly, respondents who had irregular menstrual cycle experienced a 72.5% increase in odds of self-reporting dysmenorrhea (AOR, 1.73 (95% CI, 1.162.57)). Finally, a significant association between irregular menstrual cycle , not lived

with their parent , and self-reported dysmenorrhea was found. **Kwabena Acheampong, Dorothy Baffour-Awuah, Daniel Ganu et al (2019)**

Wang MC (2009) conducted a study to know the effects of auricular acupressure on menstrual symptoms and nitric oxide for women with primary dysmenorrhea. This was randomized clinical trial comparing the effects of auricular acupressure by seed-pressure method and placebo adhesive patch. This study result supports the effect of auricular acupressure has importance in menstrual symptoms and offers a noninvasive complementary therapy for women with primary dysmenorrhea.

Sahaer, safaa gaver et al (2019) Dysmenorrhea is a significant public health problem, which has a negative effect on female's health, social relationships, school or work activities, and psychological status. The purpose of the study was to evaluate the effect of acupressure on Sanyinjiao Acupoint (SP6) on primary dysmenorrhea among adolescents. Research design was an experimental casecontrol study. A total of 100 girls were randomly assigned to two equal groups (A and B): group A included 50 girls who received SP6 acupressure, whereas group B included 50 girls who received only light skin touching. Menstrual pain was measured by using a structured questionnaire, a subjective menstrual pain scales (Visual Analog Scale and McGill Pain Questionnaire part I), before (at 8 a.m.) and after the intervention (at 8 p.m.) during the first 3 days of menstruation for 2 consecutive months. There was a significant decrease in menstrual pain among the two groups. SP6 acupressure was effective in decreasing menstrual pain and can easily be used as a nursing management method for adolescents. Acupressure should be offered to cope with menstrual pain, as it is useful and has no adverse effects.

PROBLEM STATEMENT

A pre experimental study to assess the effectiveness of health awareness programme regarding acupressure on dysmenorrhic pain among adolescent girls studying in higher secondary schools in selected community areas of Jabalpur.

OBJECTIVES

- Assess the menstrual discomforts among adolescent girls in higher secondary school of Jabalpur.
- Assess the intensity of dysmenorrhic pain among adolescent girls in selected community areas of Jabalpur.
- Assess the pre test knowledge score regarding acupressure on dysmenorrhic pain among adolescent girl.
- Assess the post test knowledge score regarding acupressure on dysmenorrhic pain among adolescent girl.

- Assess the effectiveness of awareness programme regarding acupressure on dysmenorrhic pain among adolescent girl by comparing pre test and post test score.
- Determine the association of the intensity of pain with selected demographic and clinical variables.
- Determine the association of pre test knowledge with selected demographic and clinical variables.

HYPOTHESES

(All hypotheses will be tested at 0.05 level of significance)

H1- There is a significant mean difference in pre and post test knowledge score related to the acupressure among adolescent girls studying in higher secondary schools in selected community areas

H2- There is a significant association between intensity of pain and selected demographic and clinical variable

H3- There is a significant association between pre test knowledge score with selected demographic and clinical variables.

METHODOLOGY

Research approach: The research approach adopted for this study is quantitative and evaluative approach.

Research Design: In the present study, the investigator selected Pre experimental one group pre-test post-test design

One group pre-test and post-test research design.

O_1 X O_2

O_1 :- Pre- test knowledge score

X: - Health awareness programme regarding acupressure on dysmenorrhic pain.

O_2 :- Post- test knowledge score

Setting of the study: This study was conducted in selected rural areas Panager of Jabalpur (MP).

Target population: In this study target population was adolescent girls with dysmenorrhic pain.

Accessible population: Adolescent girls with dysmenorrhic pain studying in higher secondary school in selected community areas of Jabalpur.

Sample Size- The total sample size of present study consists of 60 Adolescent girls in selected rural areas of Jabalpur city who met the inclusion criteria.

Sampling technique: Non probability - Purposive sampling technique was used for the study.

Development the tool : The tools consists of 4 sections

Section A- First section content 10 Socio Demographic variables age , age at menarche , education of father, education of mother , monthly income of the family, types of family , family history of dysmenorrhic pain ,

dietary pattern , effect on sleep pattern.

Section B It consists of 10 Clinical variables including Hb status, length of cycle in days, length of periodic phase, estimated amount of blood flow during menstruation , symptoms of dysmenorrhic pain,

Section C:A dysmenorrhic pain scale termed WaLIDD score A Working ability, Location, Intensity, Days of pain, Dysmenorrhea was used in the study.

Section D: It consists of 30 items covering the knowledge regarding acupressure regarding dysmenorrhic pain. Each item had three options, correct answer has to be selected which had one mark. Scores: poor knowledge score was 1-10, average score was 11- 20 and good knowledge score was 21-30

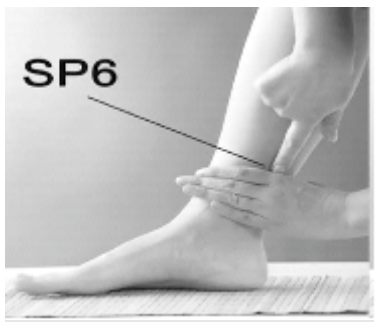
Pilot Study: After obtaining official permission from concerned authorities, the pilot study was conducted in the selected urban areas of Jabalpur city from 13th January to 18th January. Investigator selected sample with 14-17 years of age group. The sample size was 10% of main study that is 6 samples according to the objectives and hypothesis of the study analysis and interpretation of data was based on data collected by the reliability of tools. No problem was encountered. The analysis of the pilot study revealed that objectives of the study could be fulfilled. Based on this information, the investigator proceeded with the actual data collection for the main study.

Data Collection Procedure: 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 the participants.

Procedure: The study was carried out in the same way as that of the pilot study. The sample size of the study was 60 between the age group of 14-17 years. A written permission was obtained from BMO in community area of Jabalpur.

The following schedule was followed for data collection:



ACUPRESSSURE POINT: SP6 point for Dysmenorrhic pain

After identifying the samples, objectives of the study were discussed and consent for participation in the study was taken from the selected group. The investigator assured the subjects about the confidentiality of the data. The investigator herself administered the questionnaire for the pre- test.

The duration of data collection for each sample was approximately 15-20 minutes. During the pre-test, participants were seated away from each other and discussion was not

allowed. The health awareness programme regarding acupressure was given to them after the pre-test. The instruction about post test was given to the respective participants. After one week post test was taken. After the data collection, all the participants were thanked for their participation in the study.

FINDINGS

SECTION-I: Socio Demographic Data

Distribution of sample according to age shows majority 14-16 years (27) 45% and 26 were between 16-17 years 43.33% and only 7 were between below 14 years 11.66%. Distribution of participants according to mother's education shows that majority were graduate that is 25(41.66%) and 23(38.66%) were post graduate and 7(11.66%) middle school and only 5(8.33%) had gone to higher secondary school.

Distribution of samples according to monthly income Rs per month, the majority is <20,000 (35) 58.33% and were 25 is >20,000, 41.33%. Majority had joint family (30) 50% and nuclear 20 33.33% and only 10 16.66% had extended family.

According to the dysmenorrhic pain effect on daily activity majority of the samples said yes (36) 60% and no was told by 24, 40%. Distribution of participants according to the dysmenorrhic pain effect on sleep pattern, the majority said yes (40), 66.66% and No (20), 33.33%

SECTION-II: Clinical Variables Data

Distribution of sample according to the Hb status, majority were between 9gm-11gm (20) that is 33.33% and 12gm-14gm (20) that is 33.33% and few were above 15 gm(20), 33.33 %.

As per the length of menstrual cycle in days majority samples had 28-30 days (30) that is 50% and 20 were between 35 days that is 60%. Amount of blood flow during menstruation the majority (45) that is 75% of the samples had 30ml-100ml and 15 were between<30ml(<4pads in a day) that is 25%

Distribution of samples according to length of bleeding phases shows the majority (42) that is 70% had 3-5 days and 13 were between 6-8 days that is 21.66% and only 5 were between 8days and above that is 8.33%. Symptoms of dysmenorrhic pain present during menstruation the majority had lower abdominal pain (40) that is 66.66% and nausea and vomiting (10) that is 16.66% and backache is (7) that is 11.66% and only fatigue is 3 that is 5%. Presence of abdominal pain in periodic phase on menstrual cycle the majority is yes (48) that is80% and no (12) that is 20%. Distribution of samples according to any medication intake in dysmenorrhic pain shows the majority said No (40) that is 66.66% and Yes is (20) that is 33.33%. On practicing regular exercises the majority of the samples said No(53) that is 88.33% and yes is (7) that is 11.66% . Using any home remedies the

majority uses hot water bag (42) that is 70% and No was said (15) that is 25% and oil massage is (3)that is 5%. According to the pain intensity in dysmenorrhea, the majority of the samples had lower abdomen pain (42) that is 70% and pain in lower limbs (15) that is 25%.

SECTION III: Analysis of the intensity of dysmenorrhic pain among adolescent girls through WaLIDD score (dysmenorrhic pain scale) before intervention

Study findings revealed that according to the intensity of pain the majority of the samples belonged to moderate category(40) that is 66.66% and severe (16) that is 26.66% and only 7 that is 6.66% had mild pain.

SECTION IV: Analysis of the data related to knowledge score before giving the health awareness programme regarding acupressure on dysmenorrhic pain among adolescent girls.

Findings related to knowledge score before giving health awareness programme regarding acupressure on dysmenorrhic pain among adolescent girls results clearly indicate that out of 60 samples the all of the samples had average knowledge (60) that is 100%.

SECTION V: Analysis of the data related to knowledge score after giving the health awareness programme regarding acupressure on dysmenorrhic pain among adolescent girls.

Table no.01: Posttest knowledge of the samples (N=60)

Criteria	Frequency(n)	%	Mean	SD
Poor	0	0	22.96	1.89
Average	9	15		
Good	51	85		

The data given in the table no 01 reveals that out of 60 subjects the majority of the samples had good knowledge (51) that is 85% and (9) that is 15% had average knowledge score.

SECTION VI: Effectiveness of health awareness programme regarding acupressure on dysmenorrhic pain among adolescent girls

Table No.02: Mean, Mean difference, SD, df, t-test related to effectiveness of health awareness programme regarding acupressure on dysmenorrhic pain among adolescent girls N=60

Descr--iption	Mean	Mean Diff.	SD	SD Diff.	t-Test
Pre test	15.45	7.51	1.21	0.68	4.74
Post- test	22.96		1.89		

Finding related to the comparison between pre-test and post-test knowledge fulfill the objective. The comparison between pre-test score is 15.45 and post test score is 22.96 made by t-test .The pre-test and post-test

score is statistically tested by applying t-test method at the level of 0.05%. In this case the calculated df value is 118, t 4.74 which is more than the table value (1.984) which proves that the intervention was effective.

SECTION VII: Association of the intensity of pain with selected demographic and clinical variable regarding effect of health awareness programme regarding acupressure on dysmenorrhic pain among adolescent girls

The association between knowledge of adolescent girls with their demographic and clinical variables is statistically tested by applying chi-square test. All the variable were not associated except the variable age group (8.45) which was found to be significantly associated.

Rest clinical variable like Hb status, Presence of abdominal pain in periodic phase on menstrual cycle and area the pain intensity were found to be non-significant.

DISCUSSION

Socio-demographic variables

In the present study out of 60, the samples belonged to 14-16 years (30) that is 50% and 30 were between 16-17 years that is 50%, as of age majority 14-16 years (27) that is 45% and 26 were between 16-17 years that is 43.33% and only 7 were below 14 years that is 11.66%, majority post-graduation (30) that is 50% and 27 were graduate that is 45% and only 3 were higher secondary school 5%. For mother education the majority is graduate (25) that is 41.66% and were 23 post graduation that is 38.66% and 7 had middle school education that is 11.66% and only 5 had higher secondary school that is 8.33%.Monthly income the majority is <20,000 (35) that is 58.33% and were 25 is >20,000 that is 41.33%.The family type showed that the majority joint family (30) that is 50% and nuclear 20 that is 33.33% and only extended10 that is 16.66%, the dysmenorrhic pain has an effect on daily activity the majority said yes (36) that is 60% and no was 24 that is 40%, to the dysmenorrhic pain has an effect on sleep pattern the majority said yes (40) that is 66.66% and no(20) that is 33.33%.

Clinical variables

In the present study distribution of sample according to the Hb status 9gm-11gm(20) that is 33.33% and 12gm-14gm (20) that is 33.33% and above 15gm is (20) that is33.33 %, length of menstrual cycle in a day the majority had 28-30 days (30) that is 50% and 20 were between 35 days that is 60%, amount of blood flow during menstruation the majority 30ml-100ml (45) that is 75% and 15 were between <30ml(<4pads in a day) that is 25%, length of bleeding phase shows the majority 3-5 (42) that is 70% and 13 were between 6-8 days that is 21.66% and only 5 were between

8days and above that is 8.33%. S**ymptoms of dysmenorrhic pain present during menstruation** the majority had lower abdominal pain (40) that is 66.66% and nausea and vomiting (10) that is 16.66% and backache is (7) that is 11.66% and only fatigue is 3 that is 5%.**Presence of abdominal pain in periodic phase in menstrual cycle** the majority is yes (48) that is 80% and no (12) that is 20%, to the **take any medication in dysmenorrhic pain** shown the samples size the majority is no (40) that is 66.66% and yes is (20) that is 33.33%, to **practice regular exercises** the majority is No(53) that is 88.33% and yes is (7) that is 11.66%. **Use any home remedies** in the samples size the majority is hot water bag (42) that is 70% and no is (15) that is 25% and oil massage is (3) that is 5%, which area the pain intensity is more in dysmenorrhea the majority is lower abdomen (42) that is 70% and lower limbs is (15) that is 25%.

The above findings were supported by the following studies:

Nidhi Sharma, Benjamin Sagayaraj M., Balamma Sujatha (2013) conducted an observational cross-sectional study to find the burden of Dysmenorrhea and menorrhagia at Saveetha University. The sample size was calculated as 252. The median age of menarche was 13-14 years. Regular menstrual cycles were apparent in 77.4% of our young adults. Irregular periods were present in 22.6% of teenage girls although the burden of dysmenorrhea was estimated to be 70.4%. Menstrual cycle duration was more than 7days in 13.9% of individuals. Severe dysmenorrhea was present in 9.5% of girls while 24.6 % and 36.5% experienced moderate and mild dysmenorrhea respectively. Although 70.4% of girls experienced dysmenorrhea only 3.6 % used pharmacotherapy due to fear of side effects. The burden of dysmenorrhea was found much more than menorrhagia and irregular cycles in the university. A large proportion of young girls suffer from dysmenorrhea, though only a few seek treatment.

O'Connell k. et. al., (2006) conducted a study to assess the both non Pharmacologic and pharmacologic treatments used by adolescents with dysmenorrhea. The study showed that adolescents with moderate and severe dysmenorrhea reported high morbidity girls, used numerous non pharmacologic remedies as well as medication for pain but infrequently accessed formal medical care. Adolescents' mean age was 16.8 years (SD = 2). Similar proportions described themselves as white (26%), black (30%) or Hispanic (28%). Dysmenorrhea was moderate in 42%, severe in 58%, associated with nausea in 55%, and vomiting in 24%. Of those attending school (n = 66), 46% reported missing one or more days monthly due to dysmenorrhea.

Nearly all discussed their pain with someone; however, a minority sought formal medical care. All used non pharmacological remedies such as sleeping and heat application. Nearly all used at least one medication, 31% reported using two, and 15% used three medications (not concurrently). Many participants reported using medication at sub-therapeutic doses for pain.

CONCLUSION

In today's busy life, dysmenorrhea is a serious problem affecting the adolescence and it affects the day-to-day life. Most of the adolescents are not willing to consult the medical practitioner. They prefer to treat by home remedies. The merit of utilizing acupressure therapy as a nursing intervention has been proposed in the literature as a non-invasive measure to reduce dysmenorrhea and so does the present study finding. The researcher is motivated to act on and implement the pain relief measures for adolescent girls and empower them to manage dysmenorrhea.

Acknowledgement: It is with gratitude that I wish to acknowledge all those who contributed to the successful completion of my study. My sincere gratitude to my guide and co-guide and I convey my indebtedness to the **Jabalpur Institute of Nursing Sciences And Research, Jabalpur, Madhya Pradesh and the participants** for providing me an opportunity to conduct this study.

Source of funding: Self.

Conflict of interest: None.

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What does this study convey?

Acupressure for women with dysmenorrhea offer a non invasive, cost-free, and timely way to manage it on their own, thereby saving time, cost, and effort. Many studies have shown that acupressure is effective for pain relief in general and acupressure of specific sites such as the SP6 point has been reported to alleviate dysmenorrhic pain. The SP6 acupoint is the junction point of the liver, spleen, and kidney meridians, and it is proposed to strengthen the spleen, liver, and kidneys and relieve pain.

Who will use these findings?

The community health nurse has an important task in conducting school health programme and educating adolescent girls as well as community regarding the various non-pharmaceutical measures and its effectiveness in controlling menstrual pain perception. In turn such education helps the adolescent girls to be equipped and empowered with knowledge and skills to face the future effectively and teach this technique to others too.

How can the findings be put into practice?

Acupressure can be adopted as nursing interventions to alleviate dysmenorrhea as it improves productivity, creativity, work performance and quality of life. It is a healing act using the fingers to skillfully press the points which stimulate the body's natural self, creative abilities.

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ASSESSMENT OF THE LEVEL OF PSYCHOLOGICAL WELL-BEING AMONG UNDERGRADUATE NURSING STUDENTS DURING COVID-19 PANDEMIC IN THE SELECTED NURSING COLLEGES OF INDORE

*** Juby Jacob, ** Sweta Bhoskar**

Abstract

The global Covid-19 pandemic has been the most challenging scenario for the Nursing Students in many ways. It is a natural bodily reaction to challenge or presence of the prolonged stress that showed impact on their academic performance and provoked maladaptive behaviors. The student nurses could lack in clinical competency due to fear and anxiety. Hence, a quantitative study to assess the level of psychological well-being among undergraduate nursing students during COVID-19 Pandemic in the selected nursing colleges of Indore was conducted. In this study, 120 students were selected by Convenient sampling technique in order to assess the level of psychological well-being using modified Ryff's scale of psychological well-being a standard tool for measuring multiple facets of psychological well-being. Well- being is a dynamic concept that includes subjective, social and psychological dimensions as well as health related behaviors focusing on measuring multiple psychological dimensions. The results concluded that 72% had high level of psychological well-being and 28% had moderate level of psychological well-being, showing that the students have used positive coping skills while facing the challenges of the pandemic.

Keywords: Nursing students, psychological well-being, COVID-19 pandemic.

BACKGROUND

Psychological well-being is a concept in psychology that relates to how one individual adapts with respect to stressors or adverse conditions. The positive psychological well-being includes understanding yourself and others, reaching out to help people, maintaining a good health, ability to sustain good relationships and favourable coping mechanism and able to handle the crisis situations. The online learning merged as a new manifold strategy but major issues and roadblocks were a;lso there in making education as an entirely digital online phenomenon. It has showcased a lot of psychological distress among the undergraduate nursing students.[1]

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Georgia D., Lynn. C &Petrovi K. 2020[2], in her article, "Nursing Education in pandemic" shares the challenges among the nursing students during COVID -19 Pandemic. The major concern of the psychological distress among the undergraduate nursing students were social distancing, lack of competency and isolation. The continuity of the education is the major problem experienced by nurse educators. Ethically one has to consider the value of education against the risk and strain to the learner's personality and professional life.

Prtoric V.A., 2020[3]conducted a longitudinal study to assess the psychological distress among the students during the initial phase of the pandemic in Croatia. The 363 participants among the average age found to be 24.42 years reported having anxiety, stress with no difference in the degree of psychological distress between the pre-pandemic period and the pandemic period. 19.48%, 28. 8% and 22.08% were having moderate to severe depression and anxiety.

Need of the study& Review of Literature

A study on psychological preparedness for pandemic management in order to build mental preparedness of clinical nurses and nursing students was carried out by **M. Ananya, 2020[4]** in Bengaluru, India. The Psychological distress among the Nursing students included self -efficacy among themselves, coping mechanism, risk factors and fear. One in among five participants had undergone psychological training. It was found that the participants had moderate level of the psychological preparedness, self-efficacy and resilience. The standard deviation was found to be 10.82, optimism score average 9.61.

While communicating with students in general the researcher found that nursing students were missing their peer-groups and group dynamics of the college life as well as the hostel life. The repressed feelings had affected their personality and professional life. Therefore, the present study was undertaken and designed to get understanding about the psychological well-being among the undergraduate nursing students in selected colleges of Indore M.P .

PROBLEM STATEMENT

A study to assess the psychological well-being of undergraduate nursing students during COVID-19 pandemic in selected nursing colleges of Indore, M.P in the year 2019-20

OBJECTIVES

- To assess the level of psychological well-being among under graduate nursing students.
- To compare the level of psychological well-being among four batches of under graduate Nursing students.
- To find out association between the level of psychological well-being of under graduate nursing students with their selected demographical variables.

HYPOTHESES

Null hypothesis (H_0): There is no significant association between the level of psychological well-being and selected demographic variables among the under graduate nursing students at the level $p \leq 0.05$.

Research Hypothesis (H_1): There is significant association between the level of psychological well being and selected demographic-variables at the level $p \leq 0.05$.

RESEARCH METHODOLOGY

Research Approach: A quantitative research approach was used to assess the level of psychological well-being among undergraduate nursing students during COVID-19 Pandemic.

Study Setting: The present study was conducted at Choithram College of Nursing situated at manik bagh Road Indore, (M.P). This college was established in the year 1982 followed by diploma course and further in the year 1996 undergraduate B.Sc. Nursing was established. The yearly intake of the admission of the undergraduate students are 75. Majority of the students reside in hostel.

Population: In the present study accessible population was the under graduate nursing students studying in selected nursing colleges of Indore in the year 2019-20.

Sampling Technique: Convenient sampling technique was used to select the sample from the population. However, during selection, eligibility, feasibility, convenience, and willingness of samples was considered.

Sample Size: 120 participants, 30 undergraduate nursing students from each batch i.e. I, II,III, & IV year were selected.

Tools: The tools used by the investigator contains following

Section I Socio demographic variables. First section consisted of a structured interview schedule to collect baseline data which consist of 6 items for obtaining information about selected factors such as age, gender, year of batch, socio-economic status, Type of accommodation and participation in extra -curricular activities.

Section II Modified Ryff's psychological well- being rating - scale. It consists of a series of statements reflecting the six areas of psychological well-being: Autonomy, environmental mastery, Personal growth, Positive relations with others, Purpose in life and self- acceptance. Overall 18 questions based on these six domains were framed.

Scoring key: The questionnaire which was used to assess the level of psychological well-being among the under graduate nursing students consists of four statements and the score for them were dealt as given below.

Never -1

Sometimes - 2

Frequently- 3

Always - 4

Validity: The prepared tool was submitted to 7 experts including four nursing personnel from the field of Mental Health Nursing, one Psychologist, one Psychiatrist and one statistician along with the criteria checklist. The experts were requested to check for the relevance, sequence and language of the tool. Tool was prepared in English and minor modifications were suggested by the experts. The suggestions given by experts were discussed with the guide & co-guide and incorporated and final tool was developed.

Reliability: Standardized tool was used. Karl person's formula was applied as well as scale of psychological well-being and reliability was tested through Cronbach's alpha, internal consistency Ryff's and it was 0.93, 0.91, 0.86, 0.90, 0.90 and 0.87 in six domains respectively.

Ethical & Legal consideration: The study objectives, intervention, data collection procedures were approved by the research and Ethical Committee. The researcher explained to respondents about the purpose and need for the study. They assured that their details and answers used only for the research purpose. Further they were assured that their details would be kept confidentially. Thus, the investigator follows the Ethical guidelines, which is issued by the Ethical Committee after getting a written permission from the respective nursing colleges of Indore , M.P. 2019.

Data collection procedure: Group was formed in WhatsApp, then the purpose of the study was explained to the respondents in a zoom meeting and got their willingness from digital informed consent. Then the questionnaire was administered with the rating scale among the under graduate nursing students via google form. The target population of the study was the nursing students in selected colleges of Indore. The accessible population for the study was the undergraduate nursing students of selected colleges of Indore. Total 120 samples were taken from accessible population.

FINDINGS

Section I : Frequency and percentage distribution of participants according to Socio- demographic variables

The findings revealed that the majority, 63 (52.5%) of students were in between the age group of 20-21 years, and remaining 16 (13.3%) students were at and above the age of 22 years. Equal number of students i.e. 30 (25%) students were studying in 1st year, 2nd year, in 3rd year and in 4th year of the undergraduate nursing students. No drop outs were there.

Regarding the type of family, study revealed that majority 100 (83.3%) undergraduate students belonged to nuclear family and 20 (16.7%) undergraduate students belonged to joint family. About the residential area result depicted that most of the students, 74 (61.7%) students were residents of urban area and 46

(38.3%) of undergraduate students lived in rural area. The data revealed that majority of the students 108 (90%) were interested and participated in extra-curricular activities.

Section-II: Assessment of the level of psychological well-being among undergraduate nursing students

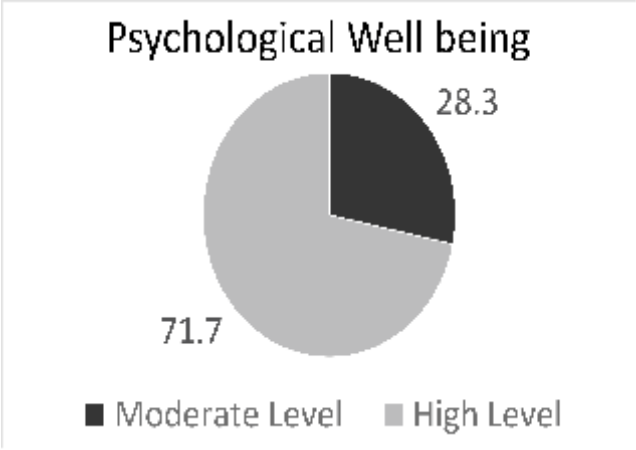

Figure 1: Pie diagram showing the Prevalence of Psychological well-being of nursing students.

Findings revealed that most of the under graduate students had high level of the Psychological well-being i.e. 86 (71.70%) and 34 (28.30%) of them had moderate level of Psychological well-being.

Section III-Comparison of psychological well-being among four batches of the undergraduate nursing student

Table-1: Frequency, Percentage, Chi square & df of psychological well-being among four batches of the undergraduate nursing students

N= 120

Variable	Levels	Psychological well being		Total	Chi-square	df	p-value
		Moderate level	High level				
Year of batch	I Year	7(20.6%)	23(26.7%)	30(25%)	3.4777	3	0.328
	II Year	12(35.3%)	18(20.9%)	30(25%)			
	III Year	9(26.5%)	21(24.4%)	30(25%)			

Table No.1 shows that there were no statistically significant association between batches and psychological well-being (p-value = 0.328). Study also revealed that high level of psychological well- being was found among I Year 23 (26.7%) & 24(27.9%), IV 6(17.6%) & 24(27.9%) respectively.

Section IV- To find out association between the levels of psychological well-being of undergraduate nursing students with their selected demographical variables.

The Chi-square analysis for association was done between the level of psychological well-being and selected Socio demographic Variables. No statistically significant association was found between the level of psychological well-being and selected demographic variables. Hence H_1 was rejected.

DISCUSSION

Section-I: Socio demographic variables

In the present study, the majority of the age group having moderate psychological well-

being. In this study all the students were females.

Section -II: To assess the level of the psychological well-being among the undergraduate Nursing students

The first objective of the present study was to assess the psychological well-being among the undergraduate nursing students. The finding concludes the high level of the Psychological well-being were 71.70% and moderate level Psychological well-being 28.30%.

On other side, the research study done by **Khan A.H.(2020)**[9] who conducted a cross sectional study to assess the imposing threat both on physical and mental health since COVID outbreak. Bangladesh adopted lockdown strategy with potential consequences on day-to-day life. Total 505 colleges from Bangladeshi University student were the sample of the study. The descriptive analysis and bivariate linear regression were performed to examine the association of variables. It was found that 28.5% responded has stress, 33.3% anxiety, 46.92% depression. The specific distress was from mild to severe in terms of severity. Ongoing physical symptoms as COVID-19 significantly associated with the DASS stress scale. The fear of infection, financial crisis, inadequacy of food supply, absence of physical exercise and limited or no recreational activities has significant association with stress, anxiety, depression and post traumatic syndrome. During the zoom call , few students verbalized few problems regarding house- hold chores and studies simultaneously was also huge challenge for them as well as the non-stop phone recharge at the time of financial crunch.

Our study is also negated by **Faibha.B,2011**,[5] she did a comparative study to assess the well-being level of the students among which 87.9% of the group were females and the rest 15.7% were males. As per the statistical view the significant correlation was found between academic progress and overall aspect of the psychological well -being excluding self - acceptance. Study concluded that the students with better psychological well-being had better academic performance.

Section-III: The comparison of the level of the psychological well-being among four batches of under graduate nursing students.

The second objective of the present study was to compare the level of psychological well-being among four batches of undergraduate nursing students. The p-value was found 0.328, which was statistically not significant. The results concluded that, there is no statistically significant association between year of batches and Psychological well- being; that is, all levels year of batches I, II, III and IV respectively equal moderate level and high level of Psychological well- being. The second-year students (35.3%) and third year students (26.5%) were having moderate psychological well-being. The second year

students had fear of their clinical competency and lacked confidence in the clinical area. The third year students were overloaded with latest additional courses that affect them with academic stress. According to INC other than medical surgical, psychiatric and pediatric they had included statistics and research theory causing educational burdens.

Researcher couldn't find study to support or negate the findings of this section.

CONCLUSION

The study brought to light the existing psychological well-being of the under graduate nursing students. It was also observed and verbalized by the students that they faced fear of clinical competency as they didn't get proper clinical exposure and also burdened with overload of theory hours. There should be a strategy to incorporate preparedness to deal with such situations.

Acknowledgement: I am indebted in a special way with deep sense of extreme respect and gratitude to my guide and co-guide for their constant positive reinforcement, suggestions and support throughout the entire period of study. I render my deep sense of sincere gratitude to all the participants for their time and active participation.

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What does the study conveys?

This study conveys moderate to high level of psychological well-being among the undergraduate nursing students during COVID -19 Pandemic and their experiences during COVID -19 Pandemic.

Who will use this finding?

Findings of the study can be implicated for nursing education, nursing practice, nursing research and nursing management/ administration. The institution must not only focus on the education, but also focus for the psychological aspects of the students, especially first year for clinical competency. Online talk session with counseling must be planned by the nurse tutor.

How can the findings be put into practice?

In the face of the COVID-19 the undergraduate nursing students must be trained and prepared for psychological preparedness in any adverse condition. Positive psychological well-being is essential for taking decisions and immediate actions. Mental health well-being is very important aspects for the undergraduate nursing students as they hold the future. This study gives a platform for further research in the implementation of training to deal with such situations.

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Short Communication

Nurses as CHOs : Sunita at her Next Best

*** Sunita Dangi**

Cervical cancer is the second most common cancer found in women in India. The current scenario of cervical cancer in India is : The incidence rate per 1,00000 women = 18.7. According to NCBI in India the cervical cancer contributes to approximately 6-29% of all cancers in women.

As per ICMR- National screening program for cervical cancer-2019, Government of India is undertaking a population based cancer screening of three common cancers in the country; oral, breast and cervical cancers. Cervical cancer screening will be done using Visual Inspection with Acetic Acid (VIA) technique by ANMs and Staff Nurses/CHOs at Primary Health Centre and Wellness Centre levels.

VIA is a naked eye examination of the uterine cervix after application of 5% Acetic Acid and interpreting the result after one minute. This is a simple and inexpensive test for the detection of cervical precancerous lesions and early invasive cancer. The results of VIA test are immediately available and do not require any laboratory support.

The interpretation of the test with pictorial representation of each condition is possible. Ablative treatment modalities like cryotherapy and thermal ablation that can be used in "Screen and Treat Approach" which is the recommended management strategy for eligible screen test positive individuals in a single visit. This strategy minimizes the loss to follow up and avoids unnecessary overloading of the higher referral facilities.

10 days training of Nursing staff posted in the peripheral health care settings at the Dist. Hospital to give them theoretical training was initiated by Madhya Pradesh government to create work force that will be confident and competent to perform cervical cancer screening at PHCs and wellness centres and effectively bring down this preventable cancer in the state. The target age range of this programme is 30-65 year old women.

** Community Health Officer (CHO), Wellness centre, Kalaria, Distt. Indore, Email : sonidangi367@gmail.com*

MY STORY

The training program for cervical cancer screening was going on in the P.C Sethi Hospital (Government), Indore. The need for increasing the manpower to conduct the VIA screening, the organizers decided to enroll more doctors and support staff (ANMs, Staff Nurses and CHOs). I also got the opportunity to undergo the training. The trainers were Dr Jyoti Simlot and Dr Kalpana Bhatnagar. Although the training was conducted on virtual platform, there was one whole day program for hands -on training of all the doctors and nurses going to be involved in this 'Cervical Cancer Screening using VIA TEST' technique.

I, after successfully completing the training was very enthusiastic to screen all the target population (women in 30-60years) of the area under care of my Wellness Center , Kalaria . We organized a mass meeting with villagers and panchayat members to create awareness among the women and educate them to tell them, “why it is important for them to get this screening done”. After few days I organized first camp of “VIA TEST” and that day I, with my team screened about 36 women in which we found one women with positive VIA. This women was referred to P.C.SETHI Hospital for further management. In the hospital she was again examined by Dr.Kalpana Bhatnagar diagnosed as a case of “a precancerous lesion' and without delay she was given Thermal Ablation Therapy (TAT) Thermal Ablation is a small procedure in which they destroy the lesion with heat therapy with the help of Thermal Gun, and the women is again examined after three months. Till date (April 2022), I have screened more then 150 women and found 4 tested positive by VIA test . My aim is to do 100% screening of my target population in my area of work during this year.

Reference: Training Module on Cervical Cancer Screening using Visual Inspection with Acetic Acid (VIA). ICMR- National Institute of Cancer Prevention & Research, Noida-2019.

Commentary

Home Health Care : Continuity of Care By Dedicated Team of Care Continuum

*** Maitreyee Bhattacherjee, ** Dr. Usha Mullick Ukande**

Care Continuum Pvt Ltd. is an out-of-hospital healthcare company in Kolkata, established in 2014 and operational from the same year. Founded by two doctors, Dr. Rana Mukherjee and Dr. Soma Bhattacharjee, along with Ms. Maitreyee Bhattacherjee, a healthcare professional dealing with hospital operations and planning, the company has established itself as one of the premier players, both in the Home-Care segment, involving Physiotherapy and post- hospitalization comprehensive care, as well as involving Elderly Care in Kolkata. All three of us were involved in various capacities in providing hospital-based healthcare. However, for a number of reasons, we felt that significant amount of care would have to be provided to patients within the community, and the need for this was already being felt. Increasing longevity of people with multiple age-related chronic illnesses and restricted mobility, meant that supervision and monitoring of a significant proportion of such patients would preferably have to be done outside the hospital. The shift from joint family system and the social security that it provided has been compounded by the youngsters in nuclear families moving to other cities, in India or abroad, in pursuit of better job opportunities.

All three of us, from the beginning of our journey, wanted to bring certain changes in health care delivery model in Community. like Supervised Nursing, Initial Assessment prior to taking any elderly under our care-role. We initiated the training for all Bedside Caregivers from inception and decided not to engage any untrained attendant.

Training has been the important part from the beginning and with a view to upgrade the training and knowing about her extensive work over 40 years in Nursing training and Research, we invited, Dr. Usha Ukande, who graciously accepted to take on the position of Director of Nursing.

Under the guidance of Dr Ukande, we decided to bring the work, which has been done in Community with Elderly in the form of Short Stories, Case Studies and experiences by Our Nurse Supervisors. We started with a single supervisor and then slowly engaged more of them one by one. Presently the division has eight of them, supervised by Nurse Coordinator.

You will find stories of their experiences in the following pages……

** Founder Director Care Continuum Pvt, Ltd,*
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Dipanwita's success story…

Home Health Care Services: A boon for the elderly population of Kolkata

Manisha Bhattacharjee
Movement Psychotherapy Practitioner

Dr : Wow! You are looking so bright and fresh. How are you feeling today?

Pt : (with smiling face) I'm fine doctor.

Dr : You have reduced weight. That's good for you.

Pt : Doctor, can you reduce some of my medicines too?

Dr : Why? You Do not want to take medicine?

Pt : Not that. But it would have been better if you could reduce.

Dr : Well, I will see if that can be done, don't worry.

Family members and the care taker show a report and a notebook to the doctor. Dipanwita (name changed,) is a patient with depression & dementia. She has been in a psycho-therapeutic intervention called MOVEMENT PSYCHOTHERAPY for more than a year.

Dipanwita never got married. Lives alone after retirement, family members visit her sometimes. She was a Professor of Geography in the University. Worked in Asansol College. During covid 19 she faced difficulties in doing some bank work which seemed a bit unusual to her family members. Then they started seeking help of a Psychiatrist & Movement Psychotherapist. Therapy started from 2nd December 2020 and still it's continued. Now let's see what the report says that was shown to the doctor.

Problem Reported

- As per MOCA, Montreal Cognitive Assessment **(score: 21/30)** she has a mild to moderate cognitive problem.
- As per GDS, Geriatric Depression Scale, (score: 10/15) there is no depression but she is taciturn.
- She has moderate level of range of movement and almost flexible body.
- She has a behavioural issue. Every 10 mints she goes to the washroom for toilet.
- She is under psychiatric Treatment
- She is a patient with diabetes also.

Assessment: Observations (1st - 4th sessions)

Body/Shape/Effort/ Space: She has shown almost normal physical flexibility and agility. She talks with appropriate eye contact and is

actively communicating with the therapist both verbally and non-verbally. Her gross motor skills and fine motor skills are all good with hand eye coordination as well (shown in her ability to catch the ball). Both the upper and lower parts of the body are flexible and the body doesn't show signs of stiffness or tension. Her energy level is normal. Effort qualities mostly observed were sudden time, heavy weight and bound flow. The planes mostly used were horizontal and vertical since the sagittal involves moving forward or backward. Her breathing is normal. She was always in happy mood during the sessions and showed no signs of anxiety or aggression during the sessions.

After 12th Session:

She had shown high mobility with high energy levels and was maintaining appropriate eye contact with the therapist throughout. She also demonstrated good observation and mirroring skills and was able to follow the instructions clearly. The body was adapting to different shapes. She took the initiative of moving in the general kine-sphere and used the entire space of the house in her movement activities and improvisations.

After 24th session:

Because she was a professor of geography, so the geography- centric brainstorming sessions were planned, such as flag of any country, currency of any country, capital of any country etc. After 12th sessions the therapist's goal was improvisation. She started improvising on a piece of music and expressed her emotions via movements on it. Sometimes she even listened to a song and drew a picture. Sometimes she even sings while listening her favourite song. Her active participation has gradually increased during sessions.

After 36th session:

After 36th sessions, she maintained high mobility with high range of movement. Frequent toileting problem decreased. After 26/27 sessions, she started to think that she has done a lot of work all her life, she wanted to relax and as a '*foody'* wanted to have different kinds of food. As a result, she gained weight and she was getting tired after doing a little physical exercise. Laziness increased with overweight. But in spite of all this, she cooperated in all the sessions. Followed all the commands of the therapist.

37th 64th sessions :

- We did online sessions during lockdown and she had full support in those sessions as well. Through digital medium she didn't have any difficulty in following the instructions. During this time, she explored her writing skills and wrote 2-3 poems. Apart from increasing laziness, pandemic didn't impact on her much.
- During the 39th & 63rd session she had done puja shopping and also shopped at chaitra sale for Bengali new year. We need to make small decisions in our daily life.

People with cognitive problems sometimes have a little difficulty in taking decisions. So, the therapist consciously planned this. In these two shopping sprees, she selected everything she liked or found useful. She didn't hesitate to make a decision.

- We know that cooking is a highest cognitive skill. According to caregiver, in this period she cooked several recipes. Such as Paneer, Alu dam, Cauliflower curry etc. Every cooking was done in the honour of a guest she had invited. Each of these activities enhanced her social skill that was dormant within her.

- Total 5 reassessments on Dipanwita have been done (after every 12 sessions). According to MOCA, MMSE & GDS Periodically, she has shown improvement in each

Score	MOCA	MMSE	GDS
12th Sessions	22/30	22/30	7/15
24th Sessions	22/30	23/30	5/15
36th Sessions	23/30	23/30	4/15
48th Sessions	25/30	24/30	2/15
60th Sessions	24/30	23/30	1/15

All the scores proved that she is improving and no further deterioration is there. Immediate memory is absolutely fine but it is better to get a little clue in delayed recall.

However, a small problem has been observed arising since the last puja (Oct 21). When therapist asked 'Today's Date', she can't answer promptly. Before, she would answer very promptly. Months and years can be answered in the same way, but the date can't without a hint or clue. It is happening because she used to write a regular diary which is stopped due to frequent changing of caregiver.

After examining Dipanwita and reading her report, the treating physician commented, 'you have significantly improved". I have reduced the medicine as per your wish. If you have problems, then only come to me and do continue the therapy.'

This is the success story of Dipanwita, her Movemrent Therapist Manisha Bhattacharjee and "The Movement Therapy" itself

COVID Care @ Home during Second Wave : Our Telenursing Services

NS Samin Ara writes...

Many Elders in Kolkata got infected during second wave of COVID-pandemic. Care Continuum Pvt Ltd, a Home Health Care Organization had supported and provided care to many individuals with mild to moderate symptoms of COVID through Tele Nursing Facility. In spite of first Dosage of Vaccination, people got infected but severity was less. We observed that, it took average 5 to 6 days to know their infectivity status.

I would like to share my experience with one of our "couple patients", Mr. AD, 73 years old and his wife CD, 69 years. They used to live alone with a part time domestic help till they got infected. They had taken their first dosage of Vaccine on 9th March 2021. Both of them have multiple comorbidities like hypertension and Diabetes. AD was on medication for Diabetes but CD had Insulin Dependent Diabetes. First symptoms Corona appeared on 8th of April, like fever, breathing difficulty. CD also got dry cough. AD's condition got deteriorated within couple of days, as he developed symptoms like diarrhoea, chest pain, high grade fever and shortness of breath. On 4th day, 11th of April, RTPCR was done and received Positive report on 13th of April. Blood Sample sent for CRP and D-Dimer and both were high.

Our Team Physician did the Tele Consultation and advised for hospitalization for AD. Subsequently he got admitted on 14th of April. CD continued with our Tele Nursing Service at Home. We used to connect with her thrice a week through a Video Call. Our Bedside Caregiver used to send us daily status report of the patient. Though, initially CD was bit anxious and felt helpless but through Tele Nursing facility and continuous support at home by our CNA made her feel better and later she accepted each member of the Team as Family.

Mr. AD got discharged after 10 days of Hospitalization and Joined with our Tele COVID Support Facility.

WHO GUIDELINE FOR COVID 19: To be followed by all staff, family care takers

- Wear mask properly
- Clean your hands with alcohol-based hand rub, soap and water
- Keep physical distance of 1 meter from others
- Avoid crowds and close contact

TELE NURSING PLANNIG FOR COVID PATIENTS IN HOME CARE: CARE CONTINUUM STRATEGY

Each Enquiry call was checked thoroughly at the time of first call. Tele Assessment was done for each patient by our Team Physician and Care Plan for Tele Monitoring was suggested as:

Minimum Three Tele Nursing Sessions in a Week,

Two Physiotherapy Sessions in a week

Monitoring of Symptoms & Vitals

Medication Management

Monitoring Intake Output status along with sleeping pattern.

Mental Health Support in case of mood swings and cognition deficit also been monitored.

Provided Training to patient's families regarding Digital BP Machine, Pulse Oxymeter, digital Thermometer, Glucometer Usage.

TELE NURSING DELIVERY BY CARE CONTINUUM TEAM:

As per Customized Care Plan, Bedside staff (CNA)was assigned to patient at home. Assigned Staff was the main connect between patient and Nurse Supervisor. As per prescription, Bedside Caregiver used to check blood pressure, pulse, Level of spo2, CBG checkup; insulin Dosage, Intake Output etc & reporting to assigned nurse supervisor.

During Tele Physio Session, Therapist had explained Breathing Exercise and bedside caregiver maintained the frequency and reported to Nurse Supervisor the Status of the Patient.

Few equipment handling were explained for distanced cases like Nebulizer and Oxygen Concentrator.

Through Tele Nursing, Nurse Supervisor used to check the Nutritional Status and if required, facilitate Home Delivery of necessary medical supplies through our Helpline Number.

MEDICATION MANAGEMENT:

The prescription by the treating doctor was collected; send to patient's WhatsApp and medicine order placed in medicine shop (as per patient requirement)

Medicine name, medicine power/dose, time proper guidelines described by Nurse Supervisor to Bedside Caregiver (those patients opted for COVID Nursing). In Case of Tele Support assigned Nurse Supervisor explained Medication Details to patient family

TELE VISIT REPORT (an example)

Date	22nd of April 2021
Name of the Patient	Mr. AD
Age & Sex	73 Yr Male
Bedside Caregiver Assigned	Yes
Vitals	Temp: 97.6f, BP: 130/75, Pulse: 96, RR: 24, SPO2: 96
Intake & Output	2.5 Lits in 24 hrs(ORS water)
Elimination Status	Stool: Passed (1 time) Urine: 9/10 times (normal colour)
Nutritional Status	Diabetic Diet
Others	Insulin Inj BASAL 12 Unit BD (Before breakfast / Before dinner) follow sliding scale Steam Inhalation: 3 times Gargling: 3 times
Oxygen Requirement in last 24 hrs	On 1 litr at night for sos
Breathing Exercise Done	3 times 5 mint (avoid if feel tired)
Oxygen Saturation before & after Exercise	SPO2 (be): 95, SPO2 (aft) : 97
Status of Medications	As per Prescription
Development of New Symptoms	Dry Cough, Weakness and Constipation
Reported to	Dr. Soma Bhattacharya
Advise Given by doctor	Syp. Duphalac 10ml OD HS & Grilinctus 10ml TDS
Informed to Report was updated to	Bedside Caregiver and Daughter Clinical Group
Next Course of Plan	Doctor Tele Consultation

PATIENT's EXPERIENCE OF HOSPITAL STAY:

Mr. AD was suffering from COVID in the month of April 2021 and was hospitalized for 10 days. Post discharge, he was under home health care **(Care Continuum**). During his stay in hospital, he was very scared & had panic attacks (because there was a huge crisis of oxygen & lack of care at hospital which was repeatedly tele-casted in news). According to him at hospital nurses are aloof in behavior, lack of response from Doctors & others; he didn't receive medicine & food on time. Overall, he had a terrible experience at hospital.

EXPERIENCE OF HOME HEALTH CARE SERVICE AFTER DISCHARGE:

After his discharge, Home Care was suggested through **Care Continuum Tele Nursing.** We provided our services at home with all safety measures of covid, patient was very happy & satisfied. There was a 24 hrs caregiver for him who took good overall care, provided him with his all-necessary things like healthy food and medicine on time. AD had a person to talk to at the time of isolation which motivated him to get well faster. The Care taker also helped in all the household work for the entire family as they all suffered with covid 2nd wave & the regular house help refused to come. So, we as an organization, tried to help the family as well as the covid victim as much as we could in all aspects.

Overall, we have provided a 21 days service to this family. At the time of service withdrawal they blessed a lot the bedside caregiver who was a constant companion to them when nobody was there to provide a glass of water. They showed a lot of love to the care giver & a gratitude to all of us the company staff (**Nurse supervisor, Nursing Coordinator, Physiotherapist, Dr Bhattacharya & Back office).**

Family was very much satisfied by our services. They said that if they need such help in future, they will definitely contact us & they will also refer our name to their friend & families.

Home Health Care Services: A boon for the elderly population of Kolkata

Nursing Supervisor Arati Bhoumik writes...

My patient, MD, 69 year old , who has been suffering with hypertension,type 2 diabetes, and schizophrenia. She has been residing alone since 2003 after she lost her husband. Both her sons reside in USA. She was friendly with a few of her neighbours with whom she would go out once in a while which has stopped since the imposition of lockdown.

In 2018, while in the USA, she took Trika for about a month for sleeplessness. On stoppage of the drug she entered into depression which got compounded by loneliness and anxiety attacks. She had a fall resulting from Benzodiazipine withdrawal had seizure and dislocated her shoulder which was reduced there in a local hospital. Depression is still present along with anxiety.

MD is our Elder Care Member and we have been taking her responsibility since November 2020, for almost a year. At the time of Initial Physician Assessment, she was oriented with Time and date. Her Cognitive ability and Memory were well preserved. Due to her clinical depression, her psychiatrist was planning to titrate the dosage of medication and requested for close monitoring at home. We initiated with round the clock bedside Caregiver(CNA) along with twice a week Nurse Supervisor's Visit and Weekly Doctor's Visit.

I used to visit her twice a week , during morning hours. One day the care taker called me at 7 P.M. and told that MD has suddenly become senseless, she is talking irrelevantly and I need your help. I, informed the office that there is some emergency and I am going right away to MD's house,and rushed to her house. As I reached there, I found MD was very restless but she was happy to see me. With the help of CNA, I did her complete clinical examination and found that her vital signs were within normal limits, there was no sign of any head injury, but she looked frail, still agitated. I called Dr Rana Mukherjee and apprised him of the patient's condition. Although the vital signs are fine but , she was searching for someone and was thinking police will come and take her away. She wanted to go out and was not going to her bedroom and was sitting in her dining room . We contacted her psychiatrist and he suggested to give her an injection of Lonazep 0.25 mg.I.M . It was quite late night. Our Care Manager arranged the Medicine and reached

patient's house at 12:30 am. She was not ready for the injection and each one of us tried and finally I could administer the Injection. She fell asleep. Our Care Manager stayed back for 2 hours and then left and I stayed back that night with Patient along with the CNA.

In the morning MD was sleeping comfortably, I asked the Bedside Caregiver to keep a watch on her , and stay with her in the same room, and to call me if there is any problem, and I left.

Our Care Taker updated the patient's status to treating Psychiatrist and started coordinating with family and an organization that has been treating different types of Mental illnesses.

I visited her the next day. After her mental status examination and her fresh episode of hallucinations that she had the day before, it was decided to admit her in the hospital for close observation and treatment. MD stayed in the hospital for two weeks. She was under antipsychotic, anxiolytic & antidepressant as well as medication for hypertension & Diabetes.

On the 15th day, I went to the hospital to get her discharged and understand the treatment regime to be followed at home. After completing all the formalities, she was brought home. All this care and interaction helped in creating a closer bond with the patient. Now she considers me her friend. I had been visiting her regularly, she would look forward to meet me. Slowly she started eating well. She started enjoying her activities both physical and mental. We initiated Movement Psychotherapy for her.

MD became Corona Positive:

After a few days MD's food and water intake reduced, she would not eat properly, this was reported by the Bedside Caregiver. I went to see her, and tried to feed her myself. She would listen to me and accept food and drinks offered by me, but she wouldn't accept food from bedside caregiver. I had to visit twice a day to feed her. After 5th day, I used to do Video call during main meals. But I felt she was not physically well.

On 11th of Jan. 2022, MD developed fever and cough. We suspected covid infection and got her RTPCR done, and yes, it was positive and as was expected, the caregiver too was tested positive for covid-19. Both were started on the covid treatment. I started counselling them through our “telenursing service”

The following were the instructions included in daily telenursing service that was to be followed by caregiver /family support person:

- To check vital signs (BP, PULSE, RR, SPO2, TEMP) and report.
- Mental Assurance
- Monitor intake and out-put.
- Medication as prescribed by the treating doctor. (If family is not able to get the

medicines, then to arrange for sending it to the family by Care Continuum Team).

- Confirm the right medicine, right dose at the right time is given to the patient.
- Daily exercise and good food intake.

All this information was obtained by me on Whats app.

After telenursing, complete clinical report was updated and sent to the treating doctor for further instructions on: to continue/ modify the treatment and to repeat the blood tests if needed.

Our telenursing regime went very well. In two weeks, time, MD and her bedside caregiver, both had recovered fully and tested negative for covid. And we resumed our routine as before, meeting her every week.

All Praises for Care Continuum Team

Nurse Supervisor Maria Khatun writes...

In the year 2017, We received a call to our Helpline number from Dr. Sen for one of his patients, MG, who was hospitalized for Urosepsis due to frequent UTI. He also said this patient has long standing hypertension with type II DM along with Parkinsonism and severe clinical depression. Her only son is based out in USA. Her son had visited us at our office and informed that his mother needs Palliative Care at Home. He doesn't want her to be readmitted in the Hospital. We requested him to share past family history and we got to learn that they were in Joint family and his mother was quite involved with each family member. After he left for USA , loneliness set in and after his father's demise, she was completely alone with domestic help, all this had forced her into social isolation, though she used to visit his son in USA every year till 2015.

Initial assessment was done by our Team Physician as per our protocol. I had gone to Hospital for smooth transition. The day of discharge, MG's Blood Sugar was 350 and came down to near normal with insulin. She was on ryles tube feeding and had urinary Catheter in, and on IV Antibiotics (Inj. Meropenum). She also had Grade I bedsore. She was conscious but totally bedridden and always wanted her son to be with her. After couple of weeks, her pus cells in urine were quite high in spite of high dosage of antibiotics. Blood Sugar was not under control in spite of following strict Diabetic Diet.

Her son contacted before leaving to USA and requested to take the entire responsibility as he felt we took care of her in all aspects. She wanted to see her son on regular basis so after he left, we initiated a video call with her son on regular basis. For initial few weeks after her son left, she used to live in total silence, not talking to anyone, was under depression. Couple of Psychiatrists were consulted and they changed the medications.

I consulted the assigned physician and we decided to change the Catheter every 21 days and Physician had set up a monthly Urine C/S. We also planned to initiate small oral feeds and fortunately she liked her favourite fish and fruits. Within 10 days, she started taking two meals orally. Her UTI was not getting cured. After consulting with Primary Physician, Our Team physician suggested to remove Urinary Catheter. We initiated with hourly clamping the catheter and on 5th day

we clamped the catheter for 2.5 hours and she felt the urgency and could indicate us the sensation on lower abdomen. We brought the commode chair next to her bed and made her to urinate (giving her Toilet Training) which we could succeed in a months time. This was one of the main milestones for our Team. After 7 weeks, we could remove all devices though she was not much interested to use Bedside Commode Chair, yet she cooperated well.

By talking with her son, we also started the Physiotherapy on regular basis. After the physiotherapy sessions her hand & foot got slightly flexible, but she still required help to move her body.

As MG was improving we found that when her son used to call her on video conference, patient used to move away her face but when 'Tuli' - granddaughter appeared on video, MG's face would turn into a big smile. Therefore, the care taker started doing all those things which would cheer her up. She liked to listen to Rabindra Sangeet, like to see drama on television & hear poems on radio. She started taking interest in grooming herself as she used to always keep herself in shape & in style earlier. That's why we kept a mirror in front of her bed so that she can see herself in the mirror & we would dress her up in saree & some make up on her face, she would ask for putting a 'bindi' & look herself in the mirror and appreciate. She always liked to put a 'bindi' on her forehead that would brighten up her face. After seeing herself in this way she used to smile & her response became visible , she began to talk little more openly.

Due to degenerative diseases (Parkinson's & Dementia) along with alteration in mood, she used to scream during physiotherapy sessions. Her psychiatrist suggested for alternative psychotherapy and we contacted her son and he agreed to start Movement psychotherapy for her. The activities she does in movement psychotherapy classes are writing, drawing, to play 'passing the ball', to play ludo with CNA. Now she can count that she was unable to do. She was very happy and show our care continuum staff & representatives that she can now do activities by herself. She used to read 'Laxmi pachali' & songs sung by her - made our office staff listen during their visit. When sometimes her son used to visit her, she used to say ' bring my saree, make up set, so that I be groomed up & look classy', and at that time she would dress up & we would make her walk around in her house & then balcony in wheelchair.

Just before Durga -Puja, she expressed her desire to do shopping for new clothes and shoes etc. We arranged to take her to the shopping mall and she was helped to purchase all the things of her liking. She also got her hair cut done. She was taken to Durga puja pandel - she became so very happy & by seeing all the lighting , lots of people of Kolkata - she said she was feeling so happy, as she went out for these celebrations after so many days. We too were very happy seeing her smiling face.

Her son and granddaughter came to meet her, she drew pictures for them to gift them. Her grand daughter, Tuli also brought a 'A

drawing of Durga Maa ' especially made by her for her grandmaa.

Now when anyone asks her 'who is your best friend' - she says, " oh so many- 'my best friends are Utsa (movement psychotherapist) , Maria (nurse supervisor), mousumi (CNA), Sharmistha (Physiotherapist). We are now very happy after serving her for nearly five years, there is a "U" turn in MG's life. That time in 2017 while getting her discharged from the hospital doctor had said, " this patient might not survive long, do give palliative care from Care Continuum". But look at her now, she by defeating all her ailments and living her life fully has proved the doctor wrong. Now when her son calls her - she gives him all the details of what she ate what all she did whole day and many more other things.

Her son is happy and more than satisfied from the excellent care received from the "Team Care Continuum" for his mother. He says it is a boon to have such an organisation of health care services for the people of Kolkata.

The Job is Tough, but the Satisfaction at the end is Enormous

Nurse Supervisor Parthana Sarkar writes...

My patient BD was discharged from the hospital on 4.12.2020 from ICCU directly to home care services of Care Continuum. As per our protocol, I went to the hospital to get her discharged and to understand the care requirements of BD to be continued at home.

I found my patient is 78 years old, gracious lady with multiple health problems like HTN, DM, Hypothyroidism , CKD and just recovered from covid-19 infection.

She was provided a 24 hours care service of a Certified Nursing Assistant (CNA) and I was the Nurse Supervisor to see that she receives the best care possible from our team and coordinate with assigned Team Physician for every clinical need.

My patient BD had developed a bed sore grade -2 while in the hospital and she was prescribed medicines as per her diagnosis and she was also prescribed oxygen 4 lit. / minute, the fluid intake restriction was up to 1.5 liters in 24 hours. She was supposed to take prescribed semi solid diabetic diet. Chest physiotherapy and care of pressure sores and frequent change of position was needed too. When I and the assigned CNA Laxmi brought her home, our patient was drowsy and looked quite weak, but her vital signs were within normal limits.

I visited her three times during the first week as her condition demanded close supervision, assessment of her condition and timely management. It took us more than 10 days to settle her down at home after discharge from hospital. Her speed of recovery improved and with constant good care of the CNA Laxmi, BD was able to go to the bathroom on her own, she was eating well and her pressure sores had almost healed. The family members were very happy with the progress of our patient, and so were, we.

BD was doing well, Laxmi CNA was always with her taking care of her, I was visiting her every week. Suddenly, about six months later, Laxmi called me one morning and asked me that our patient seems very ill, I should come immediately. I reached there and found that her overall condition was alarming. I informed our Team Physician and family contacted treating physician as well. Both Physician and family members jointly decided to admit the patient in the hospital. We informed the hospital and with all needed care shifted her to the hospital where she was earlier receiving

the treatment. BD was attended promptly by doctors and nurses and certain investigations were ordered. After going through the reports, doctors suggested dialysis for the patient. She underwent dialysis for two days, her condition improved slightly. However, BD did not want to stay in the hospital and insisted to go home and get dialysis done there itself by the CNA Laxmi who had been very kind and efficient in taking care of her. Doctors agreed to her request and planned to teach Laxmi to do peritoneal dialysis at home. Both NS and CNA learnt well how to carry out peritoneal dialysis. I informed the Care Continuum management about this and they were happy to know that patient and the family had confidence on us to take this responsibility.

We shifted BD home with all necessary gadgets needed for the dialysis. Doctors had advised new schedule of medication and some changes in the diet and fluid intake which were followed strictly during home care. Patient was very cooperative and peritoneal dialysis was successfully done four times a day for 8 months.

Our patient's general condition has enormously improved over these 14 months we have been taking care of her. Her family was very happy and appreciated us for providing “ICU like services in a home care setting”. She has been maintained on Peritoneal Dialysis for the last 8 months at Home.

I am very happy to see that the patient is in stable condition. The CNA Laxmi has been taking care of her very efficiently and compassionately.

My Experience with Elderlies has been Very Rewarding

NS Rinku Adhikari Writes...

The World around us is changing, average Life expectancy has increased than before. Many elderly are suffering with Chronic diseases and require periodical medical attention. On the other side, joint family structure has been crumbling in India for the last few decades, due to unavailability of good jobs locally, children are forced to relocate from their home town.

The Elders who are left behind, with their increased longevity, decreased mobility and dwindling social support require Holistic Care. We also identified, they require Medical Monitoring & Supervision, Medical Support & Non-Medical Support.

One of the many elderlies under our care, we here are talking about BG, referred to us by her grandson who is a cardiologist from Kolkata. BG's both daughters live in Australia and South Africa. Her only son is in transferable job. She had been traveling to different parts of the world alone. She is a voracious reader and likes watching sports on Television specially Tennis and Cricket. In 2018, when she was coming back from Melbourne, her son spoke with her about Care Continuum. Initially she did not agree to join but after hearing from her both daughters, son and grandson, finally, she agreed to join our Programme of holistic care and support. She joined us in 2017. She is one of our active members till date. On her 95th Birthday, she recited Tagore's Poem by heart. These days she likes watching IPL match.

While joining our programme, she felt she will be losing her independence and needs to follow our strict regime, but later she realized it was not so.

In our Programme, we try to maintain each individual's wishes. Our main purpose is to get associated with them and improve or maintain their Activities of Daily Living(ADL) as longer as possible. BG lives in her own flat with two full time domestic staff. During these 5 years, she maintained her health. In 2019, she was feeling uneasy at night and her blood pressure had shot up with giddiness and we admitted her in the hospital as per our physician's advice. Due to her strong willpower, she recovered and started maintaining her previous routines.

During one of our Elder Care Coordinator's visits, BG had expressed her desire to renovate her other larger flat in the same building. So that her children could come and stay with her comfortably. We facilitated her in every aspect of her move and at the same time kept checking at her health. After completion and shifting to the new Flat she called her daughter and expressed her joy of living with her daughter in a big comfortable flat and also mentioned the contribution of Care Continuum during the entire renovation.

Her daughter has gone back and BG is living in her new flat and going strong.

Saving a Person's Life in the Metro Train

NS Tumpa Pyne writes...

I am Tumpa Pyne, The Nurse Supervisor, I completed my ANM training in 2006 and started working in Hospitals. I got an opportunity to develop my core nursing skills during working with one of the renowned Cancer Units in Kolkata between 2014 to 2017.

I was planning a change in my job and one of my senior colleagues, referred me to Care Continuum. I joined this organization as a Nurse Supervisor. Although, the transit from hospital setting to home care setting was a challenge, it completely changed my perspective about nursing. I have understood the difference between working in a hospital & at home.

Here at Home, we look after overall aspects of Health,which is not only limited to physical condition of an individual and administration of medication, but also give equal importance to mental, social and psychological dimensions of an elderly's life. I found that family environment and interaction with topics of interest of the individual play an important role in maintaining their optimum health and wellbeing. We monitor these aspect on regular basis.

Home care services have given us many such experiences which were unique and inspiring. One such incidence I would like to share here:

Before covid-19 situation, while I was returning from a Home visit from a patient's house - I used to come home daily by Metro rail. Most of the time Metro used to be crowded, somehow, I would manage to stand properly and some times would get a seat to sit. One of these days, I saw one elderly person fell down and he was unable to talk. Crowd gathered around him. Seeing the crowd, I came close to that person & saw that he was sweating, I made the crowd to move little away, put some water on his face and checked his pulse manually, in the meantime, next metro stop had come. With the help of other passengers, we could bring down the elderly from Metro and Police was called by Metro Driver. Stationed Police came quite fast and started yelling at me but after seeing me when I took out B P machine & pulse oximeter the police asked me 'if I am a doctor or a nurse'? I Said 'yes, I am a nurse supervisor working with a home Care company', we look

after elderly in homes and know our job well. I gave the patient some water to drink, and checked his Blood Pressure and it was on higher side. I asked the elderly person about his history and he mentioned he is a patient of hypertension and he takes Blood Pressure medicine on regular basis and he also admitted that he forgot to take his dose of the medicine today. Fortunately, when I enquired, he had the medicine with him. I gave him the medicine and sat beside him, after that the police called the person's family, it took them an hour to come. By this time, the person became quite well, his family members gave me a lot of thanks and compliments. And I thought in my mind - at hospital we used to see patient with the help of B P apparatus, stethoscope and we used to have them available. But, see how good it is that working as Nurse Supervisors, I visit my patients in their homes and carry these essential gadgets with me in my bag - that's why today, I could help this person . “Care Continuum” our organisation makes us carry these instruments with us, and today, they came handy to save a person's life in the Metro.

Corona Pandemic gave us a New Perspective in Home Health Care

Nursing Supervisor, Pravati Nath, Writes...

In the year 2020, right from the beginning (March 2020), the whole world faced the biggest challenge of coping with the "The Deadly Corona Menace", that had affected not only the physical health but all other aspects of life of people. India, too was pushed into the Covid-19 Pandemic, with very little preparation, just like other countries, to deal with this unwarranted situation. So many infected cases and no definite treatment was known as the infection was with a new strain of corona virus. Shortage of beds in hospitals, need for strict isolation, doctors and nurses were stressed up with the work load and with a fear of getting the deadly infection. Situation became more challenging when the number of cases increased and shortage of medicines and oxygen had to be dealt with. Then came the need for "locking down the whole country" in order to restrict and retain the fast spread of corona virus. The Department of Health of Central and State governments took appreciable steps to deal with the situation by specifying hospitals for covid care, both government and private run hospitals and also "make shift arrangements" were made to start "covid dedicated specialized hospitals" with control rooms and information centres. Training of healthcare workers to deal with covid cases, provision of PPEs and arrangement for accommodation and food for HCWs was a huge task that was accomplished by the administration with the support of many stakeholders. We, at Care Continuum too faced many problems but patiently carried out our responsibilities of home based care with full support from our management.

I, while working with Care Continuum as Nursing Supervisor had the opportunity to manage many cases already under our care and those who got infected with Covid-19 virus during the pandemic. Company arranged transportation for all staff from beginning of Lockdown. We used to travel to our client's residences by Company's transport and in spite of taking all the precautions were exposed to corona virus.

When I too got infected and tested positive for covid, I faced many challenges such as I felt being ignored by my family, maybe they were scared of getting infected, I had to take care of myself, went into isolation so that I don't spread the infection to others and I realized how important it is to take full precautions as advised by WHO and the Indian Government.

Our experience during first wave of the Covid Pandemic in 2020 was new and I must acknowledge here that we were really not ready to face this catastrophe with full confidence, so were our patients and the public. The uncertainty of the course of the disease and inadequate knowledge to deal with such a situation which was new for all of us, made us feel nervous at times. Many got infected with covid virus and some were admitted in the hospitals.

By the time we faced second wave of Covid-19 in 2021, although this wave caused higher mortality, yet, we were better prepared to face it. All those who got infected did not have to go to hospitals for treatment, but stayed in their homes with clear guidelines for treatment. At home, we were able to fulfil their needs through our Certified Health Care Assistants(CNA) and Nurse Supervisor's regular weekly visits. Fortunately, the vaccine against the virus came and we got our first and second dose to protect ourselves. When the pandemic was at its peak and the lockdown too was very strict, commuting to our patient's residence became almost impossible, we used “Telenursing Services” through video conferencing with our patients and their bedside Caregivers during this time.

Again, when things improved and the second wave too passed off slowly, I resumed my home visits to my patients at their homes. Met all of them who used to wait for me to share their problems and their little achievements. Many of them had fought bravely their existing chronic diseases and also had successfully defeated the corona infection during the pandemic. They were grateful for all the services (besides the health care) such as cooking, cleaning, shopping etc. that our 24 hours health care assistants had provided during the lockdown period when only the patient and the Bedside Caregiver were there at home. I did re- assessment of my clients for their strengths and weaknesses and planned the care plan afresh so that they rejuvenate their physical and mental health and with new hope gain inspiration to live happily with more enthusiasm.

Confederation of Indian Industries (CII) recognized the commendable job of Our nursing staff during the pandemic and honoured us and our esteemed organization, “The Care Continuum” with rewards for the 'Best Home Care Services'.

The Covid Pandemic has taught us many things, we learnt to be more patient and developed better observational skills and became more compassionate towards our clients. Now, during this 3rd wave of the corona pandemic, we all are continuing to maintain same level of service, as we had been providing earlier to our precious clients in their homes, but with better understanding.

Thank you

A Skill Called 'Wellbeing'

You may say, 'A sense of wellbeing is subjective' but this is also true that the factors contributing to this attribute are within and beyond.

Although, wellbeing is a feeling of wholeness, and different people relate it to different aspects of their lives such as having wealth, having good satisfying relationships, having satisfactory physical and mental health and so on. Everyone wants to feel happy, healthy, contented and vibrant, and that could be said to be the status of 'wellbeing' in general. We call it a “status”, true, because status keeps changing, therefore, a sense of wellbeing too keeps changing. Therefore, if we wish to attain and maintain wellbeing at all the times, we need to develop a skill. All right, then let us say, **“Wellbeing is a skill that can be developed”**

Some one with 'practical wisdom' has suggested the following four ways to develop this skill: **awareness, outlook, resilience, & generosity.**

Awareness is really focusing on something with undivided attention and with complete mindfulness. This may be little difficult in the beginning, but with practice one learns to remain in the present without much effort.

Positive Outlook is the ability to see and experience goodness in others and in the situation one is in. Bestowing Loving kindness on others always makes one feel good, so, start practicing it.

Resilience is an attribute of bouncing back to normal. How quickly one bounces back to normal after an adverse experience can also be learnt with deliberate effort.

Generosity is divine attribute of a truly happy person. It is the ability to express gratitude, empathize, and show compassion to others. Compassionate behaviour towards others actually activates circuits in the brain that lead to a feeling of wellbeing. Davidson says: “*by being compassionate, what we're doing is recognizing, strengthening, and nurturing a quality that was in us there from the outset”.*

So, now we know how to develop a sense of wellbeing for all times, start developing this skill in you from today, if you already have it, great! Keep practicing it.

All the Best.

Dr. Usha Mullick Ukande

INDIAN JOURNAL OF NURSING STUDIES ('I J N S')

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3. Preference is given to research report based on **patient care** studies concentrating on nursing aspects rather than medical aspects of treatment.
4. Articles should be based on research studies. The work done during past 5 years will be considered.

Declaration - Each article should be accompanied with a declaration by all the author/ authors that they are :

- The authors of the article.
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- **Objectives**
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For 2 to 6 authors: For e.g.: Schneider Z, Whitehead D, Elliott D. Nursing and midwifery research: Methods and appraisal for evidence-based practice. 3rd ed. Mauriceville, NSW: Elsevier Australia; 2007.

NO author: For e.g. Merriam-Webster's collegiate dictionary. 10th ed. Springfield, MA: Merriam Webster; 1993.

A guide for women with early breast cancer. Sydney: National Breast Cancer; 2003.

Electronic book: Author AA. Title of web page [Internet]. Place of Publication: Sponsor of Website/Publisher; Year published [cited YYYY Mon DD]. Number of pages. Available from: URL DOI: (if available)

For e.g.: Shreeve DF. Reactive attachment disorder: a case-based approach [Internet]. New York: Springer; 2012 [cited 2012 Nov 2]. 85 p. Available from: http://ezproxy.lib.monash.edu.au/ login? URL=http://dx.doi.org/10.1007/978-1-4614-1647-0

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Hallal AH, Amortegui JD, Jeroukhimov IM, Casillas J, Schulman CI, Manning RJ, et al. Magnetic resonance cholangiopancreatography accurately detects common bile duct stones in resolving gallstone pancreatitis. J Am Coll Surg. 2005 Jun;200(6):869-75.

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GOVERNMENT REPORTS

Author AA, Author BB. Title of report. Place of publication: Publisher; Date of publication (year and month if applicable). Total number of pages. Report No.:

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Page E, Harney JM. Health hazard evaluation report. Cincinnati (OH): National Institute for Occupational Safety and Health (US); 2001 Feb. 24 p. Report No.:HETA2000-0139-2824

Online Government reports: Department of Health and Ageing. Ageing and aged care in Australia [Internet]. 2008 [cited 2008 November 10]. Available from: http:// www.health.gov.au/internet/main/publishing.nsf/Content/ageing

NEWSPAPERS AND MAGAZINES

Author(s) family name and initials. Article title. Newspaper title (edition of paper eg. Weekend edition). Date of publication year month (3 letter abbreviation) day: Sect. Location eg. A:12 or Business 5 (5 is the page number) column number is applicable eg. col. 1) (Sect = Section)

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Sack K. With Medicaid cuts, doctors and patients drop out. The New York Times [Internet]. 2010 Mar 16 [cited 2010 Mar 16]; Health:A1. Available from: http://www.nytimes.com/2010/03/16/health/policy/16medicaid.html?ref=health

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