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Phone: 01-4521738, P.O. Box no. 4780
Email: nursingjournal15@gmail.com
Website: www.nursingassoc.org.np

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Original Article

Effectiveness of Hand Massage in Preoperative Anxiety among Adult Patients Admitted in a Tertiary Care University Hospital

Bhagawati Bhattarai[1] & Shanti Awale[2]

[1]Senior Sub Inspector, Department of Nursing, Nepal Police Hospital, Maharajgunj, Kathmandu

[2]Professor, Patan Academy of Health Sciences, Lalitpur, Nepal

ABSTRACT

Introduction: Patients admitted for surgical intervention experience increased anxiety preoperatively. Management of anxiety is important in order to prevent the adverse consequences in patients undergoing surgery. This study aimed to assess the effectiveness of hand massage on pre-operative anxiety in Nepalese adults before surgery.

Methods: A quasi-experimental pre-test post-test control group design was used. Sixty-six participants (33 in experimental and 33 in control group) were recruited from the surgical ward of Patan Hospital using non probability convenience sampling. The Amsterdam Preoperative Anxiety and Information Scale was used to assess preoperative anxiety. Higher the score higher indicated higher the anxiety. Data were analysed by descriptive and inferential statistics using Statistical Package for Social Sciences version 16.

Results: The median preoperative anxiety score in the experimental group was 10(12,9) and the control group was 8(11,8). Anxiety was significantly decreased in experimental group (p = <.01), however, there was no change in anxiety score in control group (p=0.15). Statistically significant difference was found in preoperative anxiety scores between experimental and control groups (p = <0.01).

Conclusion: Hand massage tends to decrease the level of anxiety among patients before the elective surgery. Thus, hand massage can be used to relieve patient's preoperative anxiety as non-pharmacological intervention.

Keywords: Adult patients; Hand massage; Preoperative anxiety;

INTRODUCTION

A study in USA showed that hand massage reduced the level of preoperative anxiety ($p<0.05$) in patients waiting for the surgery (Li et al., 2021). In Turkey, a study among 140 patients showed that hand massage reduced the anxiety of the patients before surgery ($p<0.05$) (Cavdar et al.,2020). A randomized clinical trial conducted among 90 preoperative female patients in Iran revealed a significant decrease in preoperative anxiety level following hand massage ($p < .05$) (Rahmani et al., 2018). Similarly, a study conducted in China conducted among patients waiting for coronary angiogram showed a statistically significant decrease in the anxiety score following the hand massage($p<0.01$) (Mei et al., 2017).

It is necessary to intervene for reducing preoperative anxiety in order to reduce various complications and improve patient's outcome. Hand massage can be introduced as a simple and efficacious method that may be generalized in Nepalese health care settings and the nurses who are directly involved in patient can use it as an independent, safe and cost-effective method in managing patient's anxiety waiting for the surgery. Therefore, this study aims to assess the effectiveness of hand massage on preoperative anxiety in Nepalese adults before surgery.

METHODS

A quasi-experimental pretest posttest control group design study was conducted with an experimental group (receiving hand massage and routine nursing care) and a control group (receiving routine nursing care) to find out the effectiveness of hand massage in preoperative anxiety among young and middle-aged adult patients (age between 20-65 years) admitted in surgical ward waiting for the major elective surgery at Patan Hospital, Lalitpur, Nepal from July 2022 to August 2022.

Ethical approval was obtained from Institutional Review Committee (IRC) of PAHS PNA2205171617). Informed written consent was taken from all the participants of the study. Participants were explained about the type and purpose of the study, issues of confidentiality, voluntary participation, significance, benefits and harms, intervention process, and free will of withdrawal from the study. The rights and confidentiality of the respondents were respected in all phases of the study. Confidentiality was maintained by coding the interview questionnaire and using the findings for the study purpose only. Privacy was maintained by using bedside screens and limiting the visitors during the procedure.

The patients who belonged to age 20-65 years, consented to participate in the study and were having major elective surgery were included in the study. The patients who got anxiolytics or sedatives in the early morning of the day of surgery, clinically diagnosed as hand fracture and cellulitis of hand, had arterial venous- fistula, intravenous cannula in dorsal metacarpal veins and dorsal venous network in hand and whose pretest preoperative anxiety score was only 4 were excluded from the study. The anxiety scores 4 and below indicated that they did not have anxiety. Thus, they were not included in the study.

The sample size is calculated using the following formula (Farahani et al., 2020):

$$n = \left(\sigma_1^{\,2} + \sigma_2^{\,2}\right)\frac{(Z_{1-\alpha/2}+Z_{1-\beta})^2}{(m_1-m_2)^2}$$

The parameters used in the estimation of the sample size ($Z_{1-\alpha/2}$ =1.96, $Z_{1-\beta}$=0.84, σ_1= 2.58, σ_2 = 1.69, m1 = 2.89, m2 = 1.31) were derived from the study conducted in Iran (Brand et al., 2013). Adding 10% non-response rate, the final sample size was calculated as 66, where 33 participants belonged to experimental group and other 33 participants belonged to control group.

Non-probability convenience sampling technique was used to select the eligible participants for study. However, for the first participant who will be assigned in experimental (received hand massage and routine nursing care) or control group (who received routine nursing care only) was decided by lottery method. And then, participants were assigned alternatively.

Data was collected through structured interview of questionnaire for socio-demographic information (age, gender and history of previous surgery) and standardized tool the Amsterdam Preoperative Anxiety and Information Scale (APAIS) (Moerman et al., 1996) for preoperative anxiety assessment. It consists of six questions. Each question has a five-point Likert scale ranging from 1 to 5 where 1 means not at all and 5 means extremely. Four questions were related to anxiety and 2 were related to information. These four questions 1, 2, 4 and 5 were used to compute the anxiety score. Higher the score indicated higher anxiety. It is validated in Nepali version.

Firstly, sociodemographic information was collected from the experimental group and the level of preoperative anxiety was assessed using APAIS. Then, the experimental group received hand massage from the researcher on the day of operation, 1-2 hours before surgery for 5 minutes in each hand. Hand massage included stretching, rubbing, squeezing and pressing techniques of hand performed according to the protocol prepared by researcher following validated procedure (Li et al., 2021, Cavdar et al., 2020, Rahmani et al., 2018, Farahani et al., 2020, Wills, 2006) and subject expertise guidance.

In the control group, the sociodemographic information was collected and the level of preoperative anxiety was assessed using the APAIS. The participants in control group received routine nursing care (monitoring vital signs, reviewing and ensuring that all preoperative laboratory and diagnostic investigations were complete, informed consent was obtained, patient is nil per oral, has worn the operation gown and head cap, has removed all the clothes, jewellery, false teeth and nail polish) only. After 10 minutes, the level of preoperative anxiety was reassessed using the same scale.

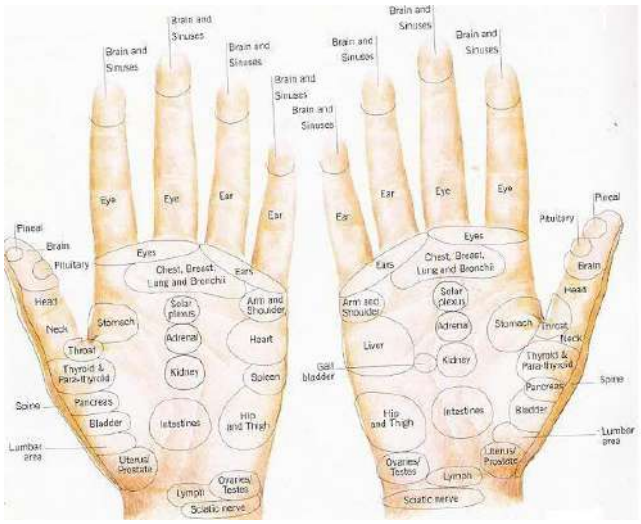
Intervention Protocol

Participants were kept in comfortable lying position on the bed. The privacy was maintained by using the bedside screen. A towel was placed below each hand during the massage. Commercially available olive oil which was provided by the researcher was used as lubricant while providing the hand massage. Hand massage was done for 5 minutes in each hand. Massage areas included fingers, palms and ventral and dorsum aspects of the hand. Hand massage began from the left hand. Using few drops of olive oil, stretched the sides of the participants hand by placing the thumbs on the palm and fingers on the top of the participant's hand. It was followed by stretching of the hands and fingers forward and backward and rotation of the wrist and finger joints. The participant's palm was supported with researcher's non dominant hand and was rubbed in a circular way using the palm of her dominant hand. A gentle milking movement was applied to the ulnar and radial side of the hand by friction movement. Gentle stroke was given to the ventral aspect of the hand including the sides of the hand in the upward movement from wrist towards the fingers. A squeezing pressure was applied by thumb and index finger of the researcher on each of the participant's hand beginning from the wrist to the fingertip. A gentle and rhythmic pressure was applied by both thumbs over the base of the hand, palmar surface, thumb pad, index finger pad and the webbing between each of the participant's finger by walking and circular movement. It was followed by sliding the thumbs over the hand of the participant from base to the fingertip. The participant received massage by applying firm downward pressure with the thumb at the different points of the participants hand that are on the solar plexus, pituitary gland, heart and tip of the thumb. The points are depicted in the figure below (Wills, 2006).

Hooking was done on the gaps of the participant's fingers. It was followed by knuckling over the participant's hand. After the completion of massage over the left hand, the same steps from were repeated to massage the right hand. Both the hands of the participants were re-cleaned by wet wipes. Field editing was done after the completion of intervention by assessing instrument for any errors, mistake, omissions and duplication. The analysis and interpretation were done using the descriptive and

inferential statistics. Socio-demographic data was analyzed by frequency, percentage, median and quartile. Data was checked for normality using the value of z score for skewness. The calculated z score of skewness is 3.408 for preoperative anxiety score in experimental group in the experimental group thus the data were not normally distributed (Kim, 2013). Thus, Wilcoxon signed rank test was used to analyze the pretest and posttest score of preoperative anxiety before and after hand massage in the experimental group and Mann Whitney U test was used for comparing pretest and post-test score of preoperative anxiety between the experimental and control groups. Chi-square test was used to find out the significant difference between experimental and control groups for socio-demographic characteristics. The collected data were analyzed using Statistical Package for Social Sciences (SPSS) version 16.

Figure 1. Reflexology Pressure points in Hands



RESULTS

Table 1. Socio-demographic Information of the Participants of the Experimental and Control group

n=66

Characteristics	Experimental Group (n=33) No. (%)	Control Group (n=33) No. (%)	*Chi*-Square test value	*P-value*
Age in years				
21-30	5 (15.2)	5(15.2)		
31-40	7(21.2)	5(15.2)		
41-50	12(36.3)	11(33.3)	0.273	0.602
51-60	9(27.3)	12(36.3)		
Md (Q1, Q3)	44(38,51)	45(36,53)		
Sex				
Male	17(51.5)	17(51.5)	0.000	>0.999
Female	16(48.5)	16(48.5)		
History of past surgery				
Yes	5(15.2)	8(24.2)	0.862	0.353
No	28(84.8)	25(75.8)		

Note: p-value < 0.05=statistically significant. Q_1: First Quartile, Q_2: second Quartile(median), Q_3: Third Quartile

Table 1 indicates that the median age of the participants was 44(38,51) years in the experimental group and 45(36,53) years in the control group. In the experimental group, 36.3% belonged to age group 41-50 years and in the control group, 36.3% of participants belonged to 51-60 years. Similarly, 51.5% of participants were male and 48.5% of participants were female in both experimental and control group. Only 15.2% of the participant had history of previous surgery in experimental group while 24.2% of participants in the control group had the history of previous surgery. The two groups were homogenous in terms of age, sex and history of previous surgery (p>0.05).

Table 2. Preoperative Anxiety among the Participants of the Experimental Group before and after Hand Massage

n=66

Preoperative anxiety score in experimental group	Q_1	Q_2	Q_3	Wilcoxon Signed Rank Test(Q)	*P-value*	*Chi*-Square test value
Anxiety score before hand massage	9	10	12	5.031	0.000***	0.619
Anxiety score after hand massage	5	6	8			

Note: Q_1: First Quartile, Q_2: second Quartile(median), Q_3: Third Quartile

****: p-value <0.001=statistically significant*

Table 2 reveals that the median preoperative anxiety score in the experimental group before the hand massage was 10(9,12) which decreased to 6(5,8) after hand massage with p<0.001 and effect size 0.619.

Table 3. Comparison of Preoperative Anxiety Scores between the Participants of Experimental and Control group

n=66

Preoperative anxiety score in experimental group							Mann Whitney U	*P-value*
Experimental Group (n=33)			**Control Group(n=33)**					
Q_1	Q_2	Q_2	Q_1	Q_2	Q_2		350	0.011
9	10	12	8	8	11			
Preoperative Anxiety Post-test Scores								
Experimental Group (n=33)			**Control Group(n=33)**					
Q_1	Q_2	Q_2	Q_1	Q_2	Q_2		167.5	0.000***
5	6	8	8	8	11			

Note: Q_1: First Quartile, Q_2: second Quartile(median), Q_3: Third Quartile

****: p-value <0.001=statistically significant*

Table 3 indicates that the median preoperative anxiety score in the control group before the routine nursing care was 8(8,11) which remained unchanged after the routine nursing care. The median preoperative anxiety score after intervention in the experimental group 5(6,8) which was less than the preoperative anxiety score after routine nursing care in the control group 8(8,11) with p<0.001.

DISCUSSION

The findings of the current study showed the median preoperative anxiety score in the experimental group before the hand massage was 10(9,12) which decreased to 6(5,8) after hand massage (p<0.001) The findings are similar to the findings of the randomized controlled trial conducted among 140 participants before Cataract Surgery in Turkey where the anxiety score reduced from 54(52,57) to 46(44.7,48) in the intervention group after hand massage (p<0.05) (Farahani et al., 2020). Similarly, a study conducted in Iran showed that among 30 participants waiting for phacoemulsification in the intervention group who received hand massage had significant decrease in the mean score of preoperative anxiety from 3.73±0.24 to 1.80±0.20 after 10 minutes of hand massage (p<0.001) (Shaermoghadam et al., 2016).

The present study showed that in the experimental group, the preoperative anxiety score among the participants after hand massage decreased from10(9,12) to 6(5,8) however the preoperative anxiety score of the participants in the control group before and after the routine care remained the same 8(8,11). It shows that there was significant difference

in preoperative anxiety score among the participants in the experimental group who received hand massage in comparison to the participants in the control group who only received the routine care (p =0.000). This finding is similar to the study conducted in Turkey where the median anxiety score obtained by the hand massage group was statistically significantly lower than that of the control group ($p<0.05$) (Farahani et al., 2020). In another study in Iran, among 90 participants (30 hand massage group, 30-foot massage and 30 placebo group), hand massage resulted in the significant decrease in preoperative anxiety score in comparison to the placebo group($p<0.01$) (Shaermoghadam et al., 2016). Likewise, in a quasi-experimental study conducted in USA among 136 participants, the decrease in preoperative anxiety score was statistically significant in the intervention group compared to the control group($p<0.001$) (Demir & Saritas, 2020). Another quasi-experimental study conducted among 86 participants in the ambulatory surgery setting in USA showed that the participants in the intervention group (receiving hand massage) had decrease in the mean anxiety measure post intervention and comparing the anxiety measure with the control group, the difference in the anxiety score between the two groups was statistically significant ($p<0.05$) (Li et al., 2021). In another similar kind of study in Iran among 52 participants, there was a significant difference in the mean anxiety level between the two groups after the hand massage ($p < 0.05$) (Nazari et al., 2012).

CONCLUSION

Hand massage decreased the level of preoperative anxiety among the adult inpatients before the elective surgery. Thus, a non-pharmacological nursing intervention, i.e., hand massage could be used to relieve patient's preoperative anxiety. However, future study should be targeted by controlling all the confounding factors of hand massage and anxiety among patients during preoperative period.

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Original Article

Quality of Life among Older Adults in Pokhara Metropolitan City

Muna Silwal[1], Sunita Gurung[2], Bindu Thapa[2]

[1] Associate Professor, College of Nursing Sciences, Gandaki Medical College, affiliated to Tribhuvan University

[2] Assistant Professor, College of Nursing Sciences, Gandaki Medical College, affiliated to Tribhuvan University

Correspondence

*Muna Silwal, Gandaki Medical College Teaching Hospital and Research Center, Pokhara, Nepal.

Email: munasilwal@gmail.com

ABSTRACT

Introduction: The quality of life (QOL) of older adult is becoming increasingly relevant with demographic shifts towards an aging population. Aging is developmental process that brings about changes in the physical, psychological, hormonal and social status. Most of these changes are expected to affect the quality of life of older adults. The objective of the study was to compare quality of life of older adults living in geriatric home with those living with family.

Methods: A cross-sectional research design was adopted to assess the quality of life among 40 older adults residing at the geriatric home and 40 residing in their own home. Non probability convenience sampling technique was used for data collection. The standardized tool WHOQoL-BREF, comprising 26 items with four domains was used. Two items were used to evaluate the perception of general health and quality of life. Each item is rated on a 5-point Likert scale. Higher scores indicate higher quality of life. Descriptive (mean, frequency, percentage, and standard deviation) and inferential statistics (Chi-square test and t-test) were applied for data analysis.

Results: More than half (60.0%) of respondents residing in the geriatric home had low quality of life, whereas more than half (52.5%) of respondents residing in their own home had high quality of life. In overall participants, there was significant association of QoL level with age (p= 0.018) and with respondents who were under regular medication (p= 0.029).

Conclusions: Most of the respondents residing in the geriatric home had low QoL. Therefore, the management of the concerned geriatric home should emphasize the provision of necessary benefits for elderly people and also routinely evaluate their perception of general health and quality of life.

Keywords: Geriatric Home; Older Adults; Quality of Life; Family;

INTRODUCTION

Quality of Life (QoL) is defined by the World Health Organization (WHO) as 'an individual's perception of their position in life in the context of the culture and value systems in which they live and with their goals, expectations, standards and concerns' (Attafuah et al., 2022). The number of people aged 60 years and older is in increasing. In 2019, the number of people aged 60 years and older was 1 billion. This number will increase to 1.4 billion by 2030 and 2.1 billion by 2050. This increase is occurring at an unprecedented pace and will accelerate in the coming decades, particularly in developing countries (WHO, 2019).

Increase in elderly population poses challenges to nation to provide the necessary care and maintain an optimal QOL of elderly (Joshi, 2021). According to the National Health Demographic Survey, 2022, the population aged 65 years and above in Nepal was 6.1 % of total population. Population aged 65 years and above of Nepal increased from 3.3 % in 1973 to 6.1 % in 2022 growing at an average annual rate of 1.26% (MOHP, 2022).

A study conducted in geriatric homes of Egypt among 20 elderly people revealed 70% of the elderly have lower QoL. There is a positive significant correlation between the levels of education and QoL (Fathy, 2020). Another study conducted on Mangalore, India among 384 elderly adults aged 60 years and above showed that the average QOL was observed among 74.3% of older adults living in community. Factors such as age, gender, marital status, living status, education, occupation, socioeconomic status, interaction with people, use of mobile phones, and social media determined the QOL of the elderly (Devraj &D'mello,2019).

A decline in quality of life in the elderly is reflected by the presence of negative feelings, a lack of meaning in life, various addictions, and a loss of autonomy (Hudakova & Hornakova, 2011). More research is required to assess the quality of life among the elderly in Nepal. The objective of this study is to compare the quality of life between elderly people living in geriatric homes and those living in their own residences.

METHODS

A cross-sectional research design was adopted to assess the quality of life (QoL) among older adults. A comparative study was conducted to assess the QoL of older adults residing in geriatric homes and those living in their own residences. Two strata were created based on the type of residence, namely geriatric homes and own residences. In Pokhara Metropolitan City, there are six old age homes, with Pokhara Geriatric Home located in Sitapaila, Pokhara-17. A total of 73 adults were residing in the geriatric home, and the sample was selected from older adults aged 60 years and above who could communicate and respond in Nepali language. Non-probability convenience sampling technique was used to collect data. Ethical approval was obtained from the Gandaki Medical College-Institutional Review Committee on September 29, 2023 (reference number: 05/080/081-F).

The Quality-of-Life Instrument-Brief Version (WHOQoL-BREF) was utilized to collect data. This tool is openly accessible and has been translated into Nepali. It evaluates perceived quality of life through 26 items, which are categorized into four domains: Physical (7 items), Psychological (6 items), Social Relations (3 items), and Environment (8 items). Among these items, two evaluate perception of general health and quality of life. Each item is ranked on a 5-point Likert scale, where higher scores indicate a higher quality of life.

At first, verbal permission was obtained from the authority of the geriatric home and the chairperson of ward number 17, Kaski. Subsequently, written permission was also obtained. Before commencing the interviews, a brief introduction and the purpose of the study were explained to the participants. Verbal and written informed consent were then obtained from the research participants. Privacy was ensured during the interviews, and all necessary precautions were taken to safeguard the rights of the respondents. Confidentiality of the information was maintained by emphasizing that the provided information would not be disclosed to others and would only be used for the study's purpose.

Data collection took place in two phases: first, from June 13, 2080, to June 21, 2080, at the old age home, and then from June 22, 2080, to June 30, 2080, at the participants' own residences. Only one participant was selected from each home, and if there were multiple eligible participants in one household, the senior-most participant was chosen. Data collection occurred at a rate of 4-5 participants per day. The duration of data collection per participant ranged from 30 to 45 minues.

RESULTS

The study result reveals that 50% of respondents' age was 70-79 years with a mean age of 71.08 and standard deviation of ±7.406. More than half (60.0%) of respondents were female. Majority (77.5%) of the respondents were married and more than half (55.0%) of them were illiterate. With regards to work status, 55.5% were dependent in others for survival.

Table 1. Health and Behavior related Information of Respondents

n=80

Characteristics	Number	Percent
Physical dependence status		
Move independently	56	70.0
Move with support	17	21.2
Bed ridden	7	8.8
Under regular medicine		
Yes	61	76.3
No	19	23.8
Substance use habit		
Never	20	25.0
Current	8	10.0
Past	52	65.0

Table 1 demonstrates respondents who can move independently were 70% and majority (76.3%) of them were under regular medicine. Regarding the substance use habit, nearly two third (65.0%) of them had substance use habit in past.

Table 2. Respondents' Level of Quality of Life

n=80

Characteristics	Level of QOL*	Type of Residence	
		Geriatric home No. (%)	Own home No. (%)
QoL	0.Low (≤50, mean score)	24 (60.0)	16(40.0)
	High (>50, mean score)38	19(47.5)	21(52.5)

* *Based on scoring guidelines from the WHOQOL-BREF instrument (WHO, 2013).*

Table 2 depicts that more than half (60.0%) of respondents residing in geriatric home had low quality of life level whereas more than half (52.5%) of respondents residing in their own home had high quality of life level.

Table 3. Comparison between QoL and Type of Residences

n=80

Comparison among two groups	QoL Scores		t-value	*P-value*
	Mean	Standard Deviation(SD)		
Geriatric Home	48.56	10.57	-2.71	0.023
Own Home	57.23	9.21		

Table 3 shows that mean score of QoL of the respondents residing in the geriatric home was found to be 48.56 ±10.57 whereas that of the respondents residing in their own home was found to be 57.23 ±9.21. Applying independent t-test, it was found that there was significant difference between QoL score and type of residence, with p = 0.023.

Table 4. Association between Socio-demographic Variables and QoL Level

n=80

Variables	QoL Level		χ^2 value	*P-value*
	Low No. (%)	High No. (%)		
Age (in completed years)				
<72	27(57.4)	20(42.6)	0.626	0.498
≥72	16(48.5)	17(51.5)		
Sex				
Male	16(50.0)	16(50.0)	0.302	0.583
Female	27(56.3)	21(43.8)		
Marital Status				
Married	32(51.6)	30(48.4)	0.506	0.477
Widowed	11(61.1)	7(38.9)		
Educational Status				
Illiterate	22(50.0)	22(50.0)	0.553	0.051*
Literate	21(58.3)	15(41.7)		
Religion				
Hinduism	30(49.2)	31(50.8)	2.157	0.142
Buddhism	13(68.4)	6(31.6)		
Under regular medicine				
Yes	35(57.4)	26(42.6)	1.359	**0.029***
No	8(42.1)	11(57.9)		

**p value significant at ≤0.05,χ2 =Chi-square, CI= Confidence Interval*

The table 4 shows that there was significant association of QoL level with educational status (p= 0.051) and respondents who were under regular medicine (p= 0.029).

DISCUSSION

This study revealed that 60.0% of respondents residing in geriatric homes had a low quality of life, while 52.5% of respondents residing in their own homes had a high QoL level. These findings are consistent with the study,which reported that 70% of the studied elderly individuals had a lower quality of life (Fathy et al.,2020). Similar study found that 58.33% of participants residing in their own residences had a high QoL level, whereas only about 40% of those residing in geriatric homes had a high QoL level (Piya.N, .et al., 2020) .

In contrast, study revealed that the majority of participants (78.5%) reported a high-level QoL, while 6.0% reported a low-level QoL and 15.5% indicated a middle-level QoL. These discrepancies might be attributed to different settings, and this study was conducted during the COVID-19 outbreak (Duan et al.2021).. Another study found that 60.2% had a good quality of life, 23.3% had fair QOL, and 16.5% had an excellent QOL score. found that 82.41% of older adults reported fair QOL, followed by 9.84% with high QOL and 7.75% reporting low QOL (Soren et al. 2022).

Similar study , found that 48.2% of participants had a good quality of life, while 51.8% had poor QoL (Joshi et al. 2018). Another study, shows that 45.9% of elderly individuals reported their QOL as neutral (neither good nor bad), 35.1% reported it as good, and 19.0% reported it as poor . This difference might be because half of the respondents in this study are from geriatric homes, whereas all the respondents in the previous study are living in their own homes (Sharma et al.2021).

The current study shows that the mean score of QoL of the respondents residing in the geriatric home was 48.56 (±10.57), whereas that of the respondents

residing in their own home was 57.23 (±9.21). These findings are consistent with the another study which showed that the mean score of QOL between elderly people living in their own homes (57.86±8.54) was better than that of elderly people living in old age homes (44.62±9.88) (Paudel, S., & Bhatta, B. 2022).

Furthermore, the present study found a significant association of QoL level with age (p= 0.018) and respondents who were under regular medication (p= 0.029). These findings align with the study finding of another study which found that participants with chronic diseases had a significant (p < 0.001) association with QoL(Duan et al.2021) .

CONCLUSION

The quality of life (QOL) score among older adults residing in their own homes is better than those residing in geriatric homes. The involvement of family members with elderly adults is crucial for enhancing QOL, and geriatric homes should strive to provide a family-like environment for the elderly residents. Therefore, the findings of this study provide a basis for stakeholders to properly manage geriatric homes and improve the QOL of elderly people. The management of geriatric homes needs to provide necessary resources and support for elderly people related to their physical and psychological well-being. Additionally, health awareness programs regarding the quality of life of elderly people and its domains are needed for service providers in geriatric homes to strengthen their awareness and capacity in providing quality services.

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Original Article

Anxiety and Depression among the Adult Clients attending Outpatient Department of a Tertiary Level Hospital

Ganga Pandey[1] & Sobha Laxmi Bajracharya[2]

[1]Hospital Nursing Inspector, Kanti children's Hospital,

[2]Professor, Patan Academy of Health Science, Lalitpur, Nepal

ABSTRACT

Introduction: Anxiety and depression are the main contributors to the worldwide health-related burden, which is primarily caused by mental disorders. The objectives of the study were to find out the prevalence of anxiety and depression, and their associated factors among the people attending outpatient department of tertiary hospital.

Methods: A descriptive cross-sectional design was used Non-probability purposive sampling technique was used to select 297 adult clients attending in OPD of a tertiary level hospital. Data were collected by interviewing the respondents through use of a structured interview schedule. Descriptive statistics was used to analyze the socio-demographic variables and inferential statistics was used to examine the association.

Results: The findings showed that 39.1% respondents had both anxiety and depression. One-fourth of respondents reported mild anxiety levels, 11.8% reported moderate anxiety levels, and 2.0% reported severe anxiety. In regards to depression nearly one-fourth of them reported mild depression, and 12.5% reported moderate depression. There was a significant association of level of anxiety of with sex($p = 0.010$), having health problems ($p = 0.010$), and marijuana use ($p = 0.048$). There was also a significant association of level of depression with sex of the respondents ($p = 0.002$) considerable.

Conclusion: The study concludes that a sizable proportion of adult clients who visit OPD suffer from anxiety and depression. Sex, physical disease, and marijuana usage tends to be associated with level of anxiety, whereas only sex tend to be associated with depression.

Keywords: Anxiety; Association; Depression; Prevalence; Relationship;

INTRODUCTION

Nearly one billion people worldwide suffer from mental illness, with more than 75% of those in low-income nations not receiving care (Kovacevic, 2020). The prevalence and disease burden of mental disorders have remained incredibly high globally, and are major contributors to morbidity, disability, and premature mortality(PAHO, 2022). Throughout 2020, the pandemic led to a 27·6% increase in cases of major depressive disorders and 25·6% increase in cases of anxiety disorders globally (Santomauro et al., 2021). In Nepal, before COVID 19, anxiety and depression prevalence estimates of 22.7% and 11.7% (Risal et al., 2016) whereas 31% had anxiety and 35.1% had depression during Covid 19 lockdown. (Basnet et al., 2021)

In Nepal, according to national mental health survey 2020, among the adult participants, 10% had any mental disorder in their life time, and 4.3% currently had any mental disorder (Nepal Health Research Council, 2020). The WHO estimates that the COVID-19 pandemic causes a 25% rise in anxiety and depression rates globally (Brunier, 2022). Anxiety and depression are key contributors to public health problems due to their high prevalence, comorbidity, and psychosocial burden (Risal et al., 2016). Anxiety and depression are linked to a high likelihood of suicidal ideation and attempt (Pandey et al., 2019). Also a high prevalence of depression among medical outpatients visiting the Internal Medicine Department (Gafaranga et al., 2024) and increasing anxiety due to chronic diseases emphasizes the necessity of screening for early identification and management to improve the well-being of medical patients. The aim of study is to determine anxiety and depression among the people as well as their association with variables as it's finding will provide a source of reference or baseline data to other research relating to this title.

Background lacks information how these problems are connected with study population more specifically.

METHODS

A cross sectional descriptive research design was adopted. The study setting was the outpatient department of Patan hospital, Lalitpur. The required sample size was calculated by using Cochran's formula (Guhawat, 2013) for estimation of a proportion ($n = z2\ pq\ /d$). The crude prevalence rate

of anxiety was 22.7% in general population of Nepal (Risal et al., 2016). So, using this prevalence rate at 5% allowable error and 95%CI, the initially estimated sample size was 297 people which was optimized to 297 after adjusting 10% non-response rate. A non-probability convenient sampling technique was used to select the subjects for the study.

A structured interview schedule of Patan Hospital, Lagankhel, Lalitpur were included whereas antenatal mother, postnatal mother,history of mental illness consisting of three sections was used for the data collection. The first section consisted of questions regarding sociodemographic characteristics of the participants. The second section consisted of the 21-items Beck Anxiety Inventory (BAI) scale and the third section included the 9- items of Patient Health Questionnaire (PHQ) intended to measure the level of depression. Each item in BAI was scored on a 4-point Likert scale (0–3) with scores ranging from 0 to 63, with higher scores reflecting greater anxiety severity. The BAI has been translated into Nepali language and has shown Cronbach's alpha = .89 to measure anxiety (Kohrt et al., 2003) The PHQ-9 consisted of nine items measuring depressive symptoms corresponding to diagnostic criteria for major depressive disorder. Each item was scored on a 4-point Likert scale (0–3) with scores ranging from 0 to 27, with higher scores reflecting greater depression severity. The PHQ-9 had been translated into Nepali language and had Cronbach's alpha 0.84 (Kohrt et al., 2016).

The ethical approval of the research proposal was obtained from the institutional review committee (IRC) of Patan Academy of Health Sciences (Ref: PNM2206101639). All clients who were 18 years and above, attending Medical and surgical OPD of Patan Hospital, and willing to participate in the study were included. The study subjects Confidentiality of the patient was ensured by coding in the interview schedule and not revealing their individual identity in the report. Informed written consent was obtained from all the respondents of the study. Data were collected from all the respondents of the study. Data were collected using a Nepali version structured interview schedule. The duration of data collection was from 24th July to 3rd September 2022.

Descriptive statistics I.e, frequency, percentage, mean, and standard deviation were used to analyze the socio-demographic variable. Inferential statistics i.e. Chi- square test was used to examine the association of the respondents' sociodemographic variables and behavioural variables (tobacco smoking, alcohol consumption, marijuana use), with level of anxiety and depression. Spearman's rank correlation was used to find out the relationship between anxiety and depression. The findings of the study were presented using tables and figures.

RESULTS

Among the 297 respondents, more than half belonged to young adult group between the age 18-39 years with mean age of the respondents as 5.04 ± 11.353 years. Among them more than half (66.7%) of the respondents were male. Occupation reveals that more than one- fourth of the respondents (25.9%) were home manager. Likewise, more than one-third of respondents (38.4%) had SLC and above education. Also, the majority of persons (80.6%) were married. Regarding reason behind OPD visit, nearly three-fourth (71.6%) of respondents visiting at OPD were accompanier of people with health problems, also about one-fifth (18.2%) of the respondents had family history of the mental illness. Similarly, in behavioural variables, nearly one-fifth (17.8%) of the respondent had tobacco/smoking habits likewise, nearly one-fourth (23.6%) of respondents consumed alcohol whereas the least (6.1%) respondents used marijuana.

The level of anxiety among the adult clients attending in OPD was 39.1%.One-fourth of respondents had experienced mild level of anxiety (Table 1).Whereas the level of depression among the adult clients was also 39.1%. One-fourth of respondents had mild depression whereas none had severe level of depression (Table 2).

Table 1. Respondents' Level of Anxiety

Level of anxiety	Number	Percent
Minimal or no anxiety (0-7)	181	60.9
Mild anxiety (8-15)	75	25.3
Moderate anxiety (16-23)	35	11.8
Severe anxiety (24-63)	6	2.0
Total	**297**	**100.0**

Mean ± SD = 7.67 ± 6.842; Range: 0 - 42

Table 1 shows that level of anxiety among the respondents attending OPD. More than half of respondents (60.9%) had a minimal range of anxiety, whereas only a few (2%) had a severe level of anxiety. Among all of them, one-fourth of respondents (25.3%) had experienced a mild level of anxiety, while 11.80% felt a moderate level of anxiety.

Table 2. Respondents' Level of Depression

Level of anxiety	Number	Percent
Minimal or no depression (0-4)	181	60.9
Mild depression (5-9)	74	24.9
Moderate depression (10-14)	37	12.5
Moderately severe depression (15-19)	5	1.7
Severe depression (20-27)	-	-
Total	**297**	**100.0**

Mean ± S.D. = .774 ± .55, Minimum 0, Maximum- 3

Table 2 shows the level of depression among respondents (adult clients) attending the OPD. Whereas, more than half of the respondents (60.9%) had minimal depression. However, nearly one-fourth of respondents (24.9%) had mild depression. Similarly, 12.5% of them experienced moderate depression. Only 4.3 percent were bothered by moderately severe depression, while 60.9 percent experienced severe depression.

Table 3. Association of Respondents' Socio-demographical Characteristics with Anxiety Status.

n=297

Socio-demographical Characteristics	Anxiety Status		*Chi*-Square test value	*P-value*
	Present (n=116) No. (%)	Absent (n=181) No. (%)		
Age group (in years)				
≤ 40	72 (38.4)	126 (61.6)	1.811	0.178
>40	44 (40.4)	55 (59.6)		
Sex				
Male	49 (32.0)	104 (68.0)	6.554	0.010*
Female	67(46.5)	77 (53.5)		
Education				
Illiterate	3 (33.3)	6 (66.7)	0.000	0.992 [b]
literate	113 (39.2)	175 (60.8)		
Marital Status				
Married	97(13.0)	149 (87.0)	0.084	.772
Unmarried	19(37.3)	32 (62.6)		
Occupation				
Unemployed	58 (41.7)	81 (58.3)	0.782	0.376
Employed	58 (36.7)	100 (63.3)		
Family history of mental illness				
Yes	26 (48.1)	28 (51.9)	2.292	0.130
No	90 (37.0)	153 (63.0)		
Reason of visiting OPD				
People having health problems	43 (50.6)	42 (49.4)	6.652	0.001*
Accompanier of people having heath problem	73 (34.4)	139 (65.6)		

Note: *Anxiety present = having mild, moderate to severe level of anxiety Absent = Minimal/No anxiety*

***p <0.01 is considered statistically significant*

[b] *Continuity Correction*

Table 3 demonstrates the, there was an association of sex (p = 0.010) and respondents' reason for visiting the OPD (p = 0.010) with anxiety. However, there was no association of age (p = 0.178), education (p = 0.992b), marital status (p = 0.772), occupation (p = 0.376), and family history of mental illness (p = 0.130) with anxiety status.

Table 4. Association of Respondents Behavioural Variables and with Anxiety Status

n=297

Behavioural Variables	Anxiety Status		*Chi*-Square test value	*P-value*
	Present (n=116) No. (%)	**Absent (n=181) No. (%)**		
Tobacco smoking				
Yes	20 (37.7)	33 (62.3)	0.47	0.828
No	96 (39.3)	148 (60.7)		
Alcohol consumption				
Yes	27 (38.6)	43 (61.4)	0.009	0.924
No	89 (39.2)	138 (60.8)		
Marijuana use				
Yes	11 (61.1)	7 (38.9)	3.915	0.048*
No	105 (37.6)	174 (62.4)		

**P<0.05 is considered statistically significant*

Table 4 reveals that there was no association between tobacco smoking (p =.828), alcohol usage (p = 924) and anxiety, but marijuana use (p=0.048) was significantly associated with anxiety.

Table 5. Association of Respondents Socio-demographic Characteristics with Depression Status

n=297

Socio-demographical Characteristics	Anxiety Status		*Chi*-Square test value	*P-value*
	Present (n=116) No. (%)	Absent (n=181) No. (%)		
Age group (in years)				
≤ 40	76 (38.4)	122 (61.6)	0.113	0.737
>40	40 (40.4)	59 (59.6)		
Sex				
Male	47 (30.7)	106 (69.3)	9.218	0.002*
Female	69 (47.9)	75 (52.1)		
Education				
Literate	112(38.9)	176 (61.1)	0.000	1.000 [b]
Illiterate	4 (44.4)	5 (55.6)		
Marital Status				
Married	91 (37.0)	155 (63.0)	2.567	0.109
Unmarried	25 (49.0)	26 (51.0)		
Occupation				
Unemployed	62 (40.3)	92 (59.7)	0.194	0.659
Employed	54 (37.8)	89 (62.2)		
Reason of visiting OPD				
People having health problems	37 (43.5)	48 (56.5)	1.001	0.317
Accompanier of people having heath problem	79(37.3)	133(62.7)		
Family history of mental illness				
Yes	25 (46.3)	29 (53.7)	1.453	0.228
No	91 (37.4)	152 (62.6)		

Note: *Depression present = having mild, moderate to severe level of depression*

***p <0.01 is considered statistically significant*

[b] *Continuity Correction*

Table 5 shows that there was an association between sex (p= 0.002) and depression but age (p = 0.737), education (p =1.000), marital status (p = 0.109), occupation (p = 0.659), people visiting at OPD (p= 0.317) and family history of mental illness (p= 0.228) were statistically insignificant at the 95% confidence level.

Table 6. Association of Respondents Behavioural Variables with Depression Status

n=297

Behavioural Variables	Depression Status		*Chi*-Square test value	*P-value*
	Present (n=116) No. (%)	Absent (n=181) No. (%)		
Tobacco smoking				
Yes	21 (39.6)	32 (60.4)	0.009	0.926
No	95 (38.9)	149 (61.1)		
Alcohol consumption				
Yes	23 (32.9)	47 (67.1)	1.479	0.224
No	93 (41.0)	134 (59.0)		
Marijuana use				
Yes	7 (38.9)	11 (61.1)	0.000	0.988
No	109 (39.1)	170 (60.9)		

**P<0.05 is considered statistically significant*

Table 6 reveals that there was no association between behavioural variables such as tobacco smoking (p =.926), alcohol consumption (p=0.224), and marijuana use (p =0.988), with depression at the 95% confidence level.

DISCUSSION

In the current study,the prevalence of the anxiety was 39.10% where one-fourth of respondents (25.30%) reported mild levels of anxiety, 11.80% reported moderate levels of anxiety, and 2% reported severe levels of anxiety. Similar study done in Kathmandu found the prevalence of anxiety in college students was comparatively higher than this study finding as it was 53.97%. Whereas 28.57% of students had mild anxiety, 18.85% had moderate anxiety, and 6.55% had severe anxiety (Khadka et al., 2022). This finding is contrast to the study findings undertaken in Bagmati province, Gandaki province, and Lumbini province, among 422 Nepalese residents during COVID-19 Lockdown, nearly one-third (31%) had anxiety, 6.2% had a mild level of anxiety, followed by 15.2% of respondents had a moderate level of anxiety which was higher than the mild anxiety level, 5.9% had extremely severe anxiety, and 3.8 had severe anxiety (Basnet et al., 2021) which might be due to peak period of COVID 19 and Lockdown effect.

The prevalence of depression in this study was 39.1%. Nearly one-fourth of them (24.9%) had mild depression. Similarly, 12.5% had moderate depression, and 4.3 % had moderately severe depression, while no one felt severe depression. In a study conducted among the general population of Nepal, the prevalence rates of depression was found to be 34.0% (Sigdel et al., 2020),which is similar to the findings of this study. Similarly, this finding is consistent with the another study findings undertaken among 50 OPD patient in tertiary hospital of India from July to September 2020, with age above 18 to 70 years. People with 20 (40%) had mild depression, and 2 (4%) had moderate depression (Datar& Shetty, 2022). likely, a high prevalence of depression was identified among internal medicine outpatients of the University Teaching Hospital of Kigali in Rwanda, with 45.7% of participants screened positive for depression (Gafaranga et al.,2024). The findings of the current study contradict the findings of a study conducted at Bagmati province, Gandaki province and Lumbini province with four hundred twenty-two (n=422) Nepalese residents, more than one-third (35.1%) had depression. mild level of depression was 13.7 percent which is less than moderate that is of 14.5 percent. Regarding severe levels, 4.3% were severely depressed and 2.6% were extremely severe depression (Basnet et al., 2021).

The current study found a significant association between socio-demographic characteristics such as gender (p =0.010), physical illness (p =0.010), and marijuana use (p =0.043) and anxiety, but insignificant with age (p =0.212), education (p=0.992), marital status (p =0.772), occupation (p=0.376), family history of mental illness (p=0.130), tobacco smoking (p =0.828), and alcohol consumption (p 0.924). This finding is consistent with the study findings conducted from various clinical departments of 57 general hospitals in China. There

were significant association between gender p =0.002 and physical disease diagnosis p =0.001 and anxiety (Cho et al., 2021).This finding is inconsistent with the study conducted among 168 general populations with age above 18 years in Gandaki province, Nepal. Study revealed no significant association between gender (p=0.174) and anxiety (Shrestha et al., 2022).

Also, there was an association between gender (p=0.002) and depression. This finding is consistent with the study findings undertaken at Bagmati province, Gandaki province and Lumbini province with four hundred twenty-two (n=422) Nepalese residents that gender (p =0.023) was associated with depression (Basnet et al., 2021). The findings of this study is inconsistent with a study done among 168 general populations of Gandaki province, Nepal. The results showed that there was no significant association between depression and gender (p =.174) (Shrestha et al., 2022)..

CONCLUSION

The study concludes that more than one-third of adult clients receiving treatment from the OPD are likely to have anxiety and depression. Sex of the client tend to be associated with anxiety and depression status and the physical illness and marijuana use were also associated with anxiety.

A comparative study can be conducted between diseased and non-diseased people.

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Original Article

Awareness and Utilization of National Health Insurance Program among Adults in a Municipality of Bhakatpur District

Rashmi Sakha[1], Jyoti Badan Tuladhar[2], Anjana Khanal[3], Simran Karki[4]

[1]Lecturer, Kathmandu Medical College and Teaching Hospital

[2]Assistant Lecturer, Kathmandu Medical College and Teaching Hospital

[3]Lecturer, Kathmandu Medical College and Teaching Hospital

[4]Registered Nurse Bharatpur Hospital

Corresponding author:

Rashmi Sakha, Lecturer, Kathmandu Medical College

Email: rashmisakha010@gmail.com

ABSTRACT

Introduction: Social Health Security Programme was introduced in Nepal for easy access to high-quality medical treatment without adding to the financial burden. The objective of the study was to assess the awareness and utilization of national health insurance program among adults in a Municipality of Bhaktapur District.

Methods: A descriptive cross-sectional design was used. Nonprobability convenience sampling technique was used to include 318 community people of Changunarayan Municipality of Bhaktapur district. Data were collected through face to face interview using structured interview schedule and analyzed by using IBM SPSS statistics 25.

Result: Out of 318 respondents, more than half of the respondents (60.7%) were aware and more than two third (68.2%) had enrolled in national health insurance program. More than half (53.8%) had utilized the services provided by program.

Conclusion: Community people of ChanguNarayan Muncipality are aware about the National Health Insurance program and utilize the services.

Keywords: Awareness; National health insurance program; Utilization;

INTRODUCTION

Disease or illness can affect people not only physically/mentally but also financially. The medical costs are so exorbitant for over 100 million people that they are forced to live on $1.90 or less each day to survive, putting them in the category of extreme poverty (World Health Organization, 2017).Every resident in Nepal has the right to basic healthcare services at no cost, according to the Interim Constitution (Interim Constitution of Nepal, 2007). However, in practice, the closest public health center is 9.3 kilometers away on average. The distance of a home from essential services is positively correlated with the incidence of poverty. 20.27% of the population live below poverty line creating hardship to fulfill basic needs (Nepal - Living Standards Survey 2022-2023). To protect Nepalese citizens against catastrophic healthcare costs, the government of Nepal established a Social Health Security Development Committee in February 2015. National Health Insurance Policy was adopted in 2014 and Social Health Security Program was initiated in 2015. It intends to provide its citizens with affordable access to high-quality medical care (Health Insurance in Nepal, 2022; Social Health Insurance Scheme, 2021.). Even though the Nepal government has implemented SHSP in almost all districts ultimately achieving universal coverage, many citizens are not aware of it.

According to the Health Insurance Board in 2019 only 16% of the total population was insured and the main issues for low enrollment among community people were less information about health insurance as well as an unclear understanding of the benefits of health insurance. Although it covers almost all costs of medical treatment on either an in-patient or out-patient basis, medications, and investigations of all insured family members, it has not yet been commonly accepted by community people (Ranabhat, Kim, Singh, & Park, 2017) Thus, the study aimed to find out the awareness and utilization of national health insurance program.

METHODS

This descriptive community based cross sectional study was conducted in ward no. 2 of Changunarayan Municipality, Bhaktapur District. A sample size was calculated by using the formula: N = Z2pq/L2 with 95% level of confidence, and 5% margin of error, 70.7% as level of awareness. Sample size was 318. Convenient sampling method was done to select the sample. The data was collected from October 9 to November 16, 2022 after obtaining ethical clearance from the Institutional Review Committee of KMC (Ref.23122022/05). Permission from Ward Chair person was taken for the study. An informed written consent was obtained from the participants and the objectives of the study were made clear. Only one family member of more than 18 years of age from each house of selected ward was taken as sample unit. Adults who were willing to respond to the questionnaires were included in the study. Researchers visited each household and clearly explained the purpose of the study. Data were collected via structured interview schedule using Nepali version questionnaire. Time for interview session was 15-20 minutes for each participant and 12-15 participants were interviewed each day. Interview schedule consisted of three parts:

Part I: Questions related to socio demographic variables

Part II: Questions related to awareness regarding national health insurance program consisting 27 questions. Among them 10 are yes/no questions, 13 are multiple choice question and 4 are multiple response questions

Part III: Questions related to utilization regarding national health insurance program consisting 4 questions. Among them 2 are yes/no questions and 2 are multiple choice questions.

Score interpretation for awareness: Each correct response for multiple response question, multiple choice question and "yes" for yes/no question is given score "1" and wrong response and "no" for yes/no question is given score "0" with maximum possible score of 40. Responses scoring is converted into percentage and categorized as:

Not aware = ≤ 50% and Aware = > 50%

Score interpretation for utilization: "1" score is provided if they have enrolled in this program since 6 months and utilized any services. Face validity of the interview schedule was established through proper formulation and formatting of questions and content validity was established through peer review. Data were entered into IBM SPSS Statistics 25 and descriptive statistics have been presented as means, standard deviations, frequencies, and percentages. Pretesting was done in 10% (32) of sample size among adults of ward no 1 in Changunarayan Municipality.

RESULTS

Table 1. Socio-demographic Characteristics of the Respondents

n=318

Characteristics of the respondents	Number	Percent
Age group in completed years*		
21-40	144	45.3
41-60	174	54.7
Gender		
Male	165	51.9
Female	153	48.1
Ethnicity		
Brahmin	110	34.6
Chhetri	90	28.3
Newar	118	37.1
Education		
Illiterate	39	12.3
Basic	82	25.8
Secondary	130	40.9
Higher Education	67	21.0
Religion		
Hindu	283	89.0
Others	35	11.0
Occupation		
Agriculture	93	29.2
Homemaker	121	38.0
Service	58	18.2
Self employed	46	14.6
Family Size		
Nuclear	177	55.7
Joint	141	44.3

*Mean age ± SD = 42.46 ± 9.638

The mean age of the respondents was 42.46±9.638 years with minimum of 22 years and maximum of 60 years. Among them, there were 51.9% male and 48.1%female. Out of 318 respondents, 37.1% were Newar, 34.6% were Brahmin and 28.3% were Chhetri which represented mixed habitat in Changunarayan Municipality. The respondents were engaged in different occupation like 29.2% agriculture, 18.2% service. More than half (55.7%) lived in nuclear family.

Table 2. Source of Information about National Health Insurance

n=318

Source of information#	Number	Percent
Friend/ neighbor	248	78.3
Insurance agents	156	49.2
TV/other media	76	23.9
Newspaper/prints	52	16.4
Health worker	27	8.5

#Multiple responses

Table 2 shows sources of information of national health insurance where majority (78.3%) got information from Friend/ neighbor.

Table 3. Respondents' Enrollment and Utilization of National Health Insurance Program

Variables	Number	Percent
Currently enrolled in National Health Insurance Program (n=318)		
Yes	217	68.2
No	101	31.8
Used services provided by National Health Insurance Program (n=217)		
Yes	191	88
No	26	12
Type of services used (n=191)		
Inpatient services	30	15.7
Outpatient services	108	56.6
Both services	53	27.7
Time of enrollment (n=191)		
Before 2079 B.S.	171	89.5
From 2079 B.S.	20	10.5
Utilization of National Health Insurance Program (n=318)		
Utilized	171	53.8
Not Utilized	147	46.2

Table 3 shows that 68.2% were enrolled in insurance program during the time of data collection. Out of those 88% had used the services where more than half (56.6%) had used out-patient services and 89.5% had enrolled in insurance program before 2079 B.S.

Out of 318 respondents 53.8% had utilized the services from National Health Insurance Program.

Table 4. Respondents' Reasons for Opting to Health Insurance

n=217

Reason for opting health insurance	Number	Percent
Reduce out of pocket expenditure	147	67.7
Reduce household expenditure	121	55.8
Helps in emergency medical treatment	98	42.9
Refund the expense done during treatment	32	14.7
Insurance makes life easier	28	12.9

#Multiple responses

Table 4 shows reasons for opting health insurance program where 67.7% responded to reduce out of pocket expenditure followed by 55.8% responded to reduce household expenditure and only 12.9% responded that insurance makes life easier.

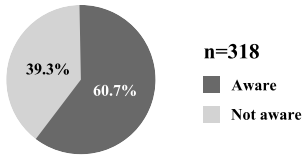

Figure 1: Awareness of National Health Insurance Program

Figure 1 shows Awareness of National Health Insurance Program where 60.7% (193) were aware and 39.3% (125) were not aware about National Health Insurance Program.

DISCUSSION

In present study 60.7% of respondents were aware of national health insurance program which is similar to the study conducted in Dharan, Nepal where 70.7% were aware (Thapa et al., 2021) but contrast to the study conducted in Tamil Nadu, India, Bhaktapur and Pokhara, Nepal where 51%, 87.3%, 45.1% respectively were aware about the program (Raja et al., 2019; Shrestha et al., 2020; Sharma et al., 2021). Though Changunarayan and Bhaktapur Municipality are in same district but the results are different, this might have happened as households with health insurance were selected in later one.

Among 318 respondents more than half (53.8%) have utilized the services which is in line to the study conducted in South India where 53.1% had utilized the services (Reshmi et al., 2007). This study finding contradicts to the studies conducted in Illam and Pokhara, Nepal where 88.7%, 69% respectively had utilized the services (Shah et al., 2022; Sharma, et al. 2021).Given that utilization of insurance program is correlated with awareness, the low level of health insurance awareness may have contributed to the lower number of utilization of services. In this study

68.2% respondents had enrolled in National Health Insurance Program which differs from the study conducted in Pokhara and Dharan, Nepal where only 40%, 36.6% respectively had enrolled in it (Sharma et al., 2021; Thapa et al., 2021).

The reason for opting health insurance in this present study was to reduce out of pocket expenditure (67.7%). This result was consistent with studies conducted in India by Khan (2016) and in Nepal by Shrestha (2020) where 60.18%, 66.5% respectively stated to reduce out of pocket expenditure. In the study done by Raja (2019) financial coverage was the main reason (60%) while in the study of Chaudhary (2012) refund of cost of drugs (100%) was major reasons for opting health insurance.

In the present study the main source of information was friend/neighbor 248 (78.3%) followed by Insurance agent 156 (49.2%) , while in the study done in other districts of Nepal showed that 74% got awareness from radio (Bawa & Verma, 2011) and 75.9% got information from insurance agents and FCVs (Shrestha et al., 2020). In contrary, awareness in other studies in Nepal was found mainly through family/friend/relative/ newspaper (Thapa et al., 2021)

CONCLUSION

More than half of the participants are aware about the national health insurance program and half of them are utilizing the services provided by the program. More awareness programs need to be conducted by government to increase the enrollment of community people and also for utilization of the services as awareness is directly proportionate to the utilization. Friends/neighbors and insurance agents play major role in dissemination of information. For extensive coverage of national health insurance program, more awareness programs should be conducted through mass medias.

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Original Article

Awareness on Pre-Conception Care among Reproductive Age Women in a Teaching Hospital, Kathmandu

Kanchan Gautam[1] & Sushma Acharya[2]

[1]Staff Nurse, Nepal

[2]Associate Professor, Manmohan Memorial Institute of Health Sciences,

Solteemode, Kathmandu, Nepal

Corresponding Author:

Kanchan Gautam

Email: kanchangautam468@gmail.com

ABSTRACT

Introduction: Preconception care refers to the provision of programs for biological, behavioral, and social well-being to the women and couples before the conception. The key objectives of preconception care are to improve their health and reduce environmental and behavioral factors that contribute to poor outcomes in the health of mothers and their children. Preconception care strives to improve women's health and pregnancy outcomes by managing risk factors and preventing disease for the benefit of future generations. So, this study aimed to find out the awareness regarding preconception care among reproductive-age women.

Methods: A descriptive cross-sectional study was conducted among 150 reproductive-age women attending the outpatient department of Manmohan Memorial Teaching Hospital, Kathmandu. The sample was selected by non-probability purposive sampling technique. Data were collected by using structured interview schedule and analyzed using SPSS software version 16 with appropriate descriptive (mean, median, and standard deviation) statistics.

Results: The finding showed that 31.3% of the respondents had adequate awareness, while 68.7% had moderate awareness about preconception care. Only 36.7% of the respondents knew that folic acid should be started 3 months before conception. And only 24% of respondents were aware that folic acid is effective in reducing the risk of birth defects.

Conclusions: This study concludes that there was a moderate level of awareness on preconception care among reproductive-age women. Hence, there should be focused counseling and more educational intervention to enhance the awareness level of women of reproductive age.

Keywords: Awareness; Pre-conception care; Reproductive-age women;

INTRODUCTION

The care provided to women for optimal health before conception with the objective of minimizing risk factors and improving pregnancy outcomes is known as preconception care (Wanyonyi et al., 2019). Preconception care has major impact on reduction of maternal and childhood mortality (Lemma et al., 2022). It includes expanding women's awareness of preconception care, enhancing their ability to plan their pregnancy, and developing a solution to deal with unfavorable pregnancy outcomes (Setegn, 2021).

Many women of reproductive age group are unaware about the importance of preconception care and they do not follow the preconception care (Sunila et al., 2019). Awareness of preconception care is strongly correlated with the history of institutional delivery, as well as the use of postnatal care services, and the history of utilizing modern contraceptives (Fekene et al.,2020). Therefore, the objective of this study was to find out the awareness regarding preconception care among reproductive-age women.

METHODS

A descriptive cross-sectional study was conducted among purposively selected150 reproductive age women in the outpatient department (OPD) of Manmohan Memorial Teaching Hospital located at Swoyambu, Kathmandu. The ethical clearance was obtained from Manmohan Memorial Institute of Health Sciences' Institutional Research Committee (MMIHS-IRC 269). Data collection was performed

using researcher developed structured interview schedule. Pretesting of the instrument was done in the 10% of total sample in reproductive age women other than study participants. For the validity of the instrument, literature review was done, and an adviser and subject experts were consulted while developing the questionnaire. Two sections were made up structured interview schedule based on the objectives of the study:

Part I : Respondents' socio-demographic data with 9 items, and

Part II : Awareness regarding preconception care with 17 items.

Every correct response received a score of 1, while incorrect responses received a score of 0. A total score was between 0 and 26. The level of awareness was categorized into adequate awareness (>75%) and moderate awareness (<75%). After explaining the respondents about the purpose of the study, their written consent was obtained. The data collection was done within the allotted time of 15 to 20 minutes for each respondents. Researcher explained and assured to the respondents that the confidentiality will be maintained by not disclosing the information to others and privacy was maintained by conducting the interview in the quite area in OPD. The Statistical Package for Social Sciences 16 was used to compile, code, and analyze the data in the study. The data was interpreted using the appropriate descriptive (mean, median, and standard deviation).

RESULTS

Table 1. Socio-Demographic Characteristics regarding Age, Marital Status, Religion, and Ethnicity of the Respondents

n=150

Characteristics	Number	Percent
Age in years#		
16 – 20	16	10.7
21 – 25	57	37.9
26 – 30	40	26.0
31 – 35	24	16.1
36 – 40	7	4.7
≥41	6	4.6
Marital status		
Unmarried	24	16.0
Married	126	84.0
Religion		
Hindu	117	78.0
Buddhist	22	14.7
Muslim	1	0.7
Christian	6	4.0
Others	4	2.7
Ethnicity		
Brahmin	43	28.7
Chhetri	47	31.3
Dalit	8	5.3
Janajati	43	28.7
Others	9	6.0

#Mean age: 27.17 ± 6.307

Table no 1 shows that out of 150 respondents,37.9% were between 21-25 years of age. Majority (84%) of respondents were married and 78% of the respondents were following Hindu religion. Among them, 31.3% were Chhetri.

Table 2. Socio-Demographic Characteristics regarding Level of Education, Occupation, Type of Family, Residence and Income

n=150

Characteristics	Number	Percent
Education level		
Illiterate	14	9.3
Primary level	12	8.0
Secondary level	56	37.3
Higher level	68	45.3
Occupation		
Housewife	76	50.7
Labour	9	6.0
Businesswoman	33	22.0
Others	32	21.3
Type of family		
Nuclear	84	56.0
Joint	66	44.0
Residence		
City	115	76.7
Village	35	23.3
Family monthly Income (NRs)		
Less than 10000	15	10.0
10000-20000	30	20.0
20000-30000	51	34.0
More than 30000	54	36.0

Regarding the table no. 2, fourty five percent of the respondents studied up to higher education level, more than half (56%) of the respondents were from nuclear family, 76.7% of respondents were from city, 36% of respondents had average monthly family income of more than 30 thousand. In regards to the occupation, 50% were housewives.

Table 3. Awareness on Preconception Care among the Respondents

n=150

Variables	Number	Percent
Meaning of preconception care	121	80.7
Purpose of preconception care	108	72.0
Appropriate age of women for childbearing	142	94.7
Appropriate time to visit the health professional before conception	94	62.7
Both spouses need to be involved in preconception care	143	95.3
Carbohydrates, proteins, vitamins, and fats are essential diet to women for the preparation of pregnancy	147	98.0
Time to start folic acid	55	36.7
Effective micro-nutrients to reduce the risk of birth defects	36	24.0
Appropriate time to stop hormonal contraceptives before pregnancy	57	38.0

Regarding the awareness related to preconception care (Table no. 3), 80.7% of respondents knew actual meaning of the preconception care. Similarly, 72% of respondents were aware on its purpose. Likewise, 94.7% of respondents knew that the appropriate age of women for child bearing is between 20–30 years. More than half of the respondents (62.7%) were aware that visiting the health professional or obstetrician before conceiving the baby is imperative.

Similarly, 98% of the respondents were aware that using carbohydrate, protein, vitamin and fat as diet for the preparation of conception is necessary. Furthermore, 36.7% of the respondents were aware that folic acid should be started 3 months before conception, and 38% of the respondents reported that hormonal family planning method should be stopped by female spouse before 3 months of pregnancy.

Table 4. Respondents' Awareness on Factors Affecting Conception

n=150

Variables	Number	Percent
Smoking and alcohol consumption in pregnancy harm the baby	149	99.4
Blood sugar should be in control in women before conception	149	99.3
Blood pressure should be in normal level in women before conception	148	98.7
Screening of HIV/AIDS is necessary for both parents before conception	147	98.0
Genetic test is essential prior to pregnancy by the couple	149	99.3
Taking drugs without medical prescription prior and during pregnancy harmful for fetus	149	99.3
Stress in women prior and during pregnancy may harm growing fetus	150	100.0
Effective micro-nutrients to reduce the risk of birth defects	36	24.0
Appropriate time to stop hormonal contraceptives before pregnancy	57	38.0

Regarding the table no. 4, the awareness on harmful factors for conception; almost all respondents are aware about the factors affecting conception and fetus after conception, that are; smoking and alcohol consumption (99.4%), uncontrolled blood sugar (99.3%), high blood preseure (98.7%), stress in woman (100%) and intake of drugs without medical prescription (99.3%). Similarly respondents responded that the screening of HIV/AIDS (98%) and Genetic test (99.3%) are essential to be done by the couple prior to pregnancy.

Table 5. Respondents' Awareness on Factors Affecting Conception

Level of Awareness	Number	Percent
Moderate	103	68.7
Adequate	47	31.3
Total	**150**	**100.0**

Table no. 5 shows that, majority of respondents (68.7%) had moderate awareness and 31.3% had adequate awareness regarding preconception care.

DISCUSSION

Regarding the level of awareness of respondents, 68.7% had moderate awareness and 31.3% had adequate awareness regarding preconception care. According to a study conducted in Chitwan, Nepal, 51% of the respondents had inadequate level of awareness and 42% had moderate level of awareness and 7% of the respondents had adequate level of awareness (Nepali &Sapkota, 2017). Another study conducted in Ethiopia showed that 73.2% had inadequate level of awareness and 26.8% had good level of awareness on preconception care (Fekene et al., 2020). Additionally, a study conducted in Ghana showed that only 34.5% were aware about the preconception care (Boakye-Yiadom et al., 2020).

Regarding the awareness related to preconception care; 80.7% of the respondents knew the actual meaning of the preconception care. Similar result was found in a study conducted in North-western Nigeria which showed that 91.6% knew the meaning of preconception care correctly (Tokunbo et al., 2016). Similarly, 72% of the respondents reported that purpose of preconception care is to maximize the health of prospective parents and hence creating a constructive environment in which conception and fetal development occur and thereby helps to reduce the rate of illness and death of child and mother. A study conducted in Kerala showed that more than 70% of women were aware of importance of preconception care which is similar to this study (Sunila et al., 2019). Likewise, 94.7% of the respondents knew the appropriate age of women for child bearing is between 20–30 years. A study conducted in Kerala showed the different finding where 43.5% of respondents were aware about the ideal age for pregnancy (Sunila et al., 2019).

Additionally, 98% of the respondents were aware about the use of carbohydrate, protein, vitamin and fat is necessary as diet for the preparation of conception which is contrast with the finding of Nigeria which showed that only 14% of respondents perceived that women should eat good nutrition and vitamins (Akinajo et al., 2019). Furthermore, 36.7% of the respondents knew that folic acid should be started 3 months before conception. One study conducted in Kathmandu Nepal showed that 11% had knowledge about folic acid supplementation before 3 month of conception (Khanal, 2020). Likewise, 38% of the respondents reported that hormonal family planning method should be refrained by female spouse in 3 months before pregnancy. A study conducted in Kerala showed that 59.5% were aware that the hormonal contraception before pregnancy should be stopped which is higher than our study finding (Sunila et al., 2019).

Similarly, in this study, 99.4% of respondents accepted that smoking and alcohol consumption in pregnancy can harm the baby. A study conducted in Pakistan showed near similar finding that is 84.6% females were aware that smoking cause adverse

effects to the baby (Tariq et al., 2021). About 99.3% of the respondents agreed that blood sugar should be in control in women before conception. Similarly, 98.7% of respondents responded that blood pressure should be in normal range in women from preconception period in order to conceive healthy baby. Contrast result was found in a study conducted in Southwest Ethiopia which showed that 61.5% woman knew about the importance of screening for hypertension before the conception (Teshome et al., 2020). In this study, 99.3% of respondents answered that genetic test is important to be done prior to conception by the couple. A study finding in Kenya showed the contrast result which is only 7.6% were aware about the importance of screening for genetic diseases (Joyce, 2018). Almost all (99.3%) of the respondents agreed that taking drugs without medical prescription prior and during pregnancy by women has negative effects for fetus. Similar finding was found in a study conducted in Kathmandu, Nepal which showed that 99% of respondents had knowledge on avoidance of harmful drugs and substances (Khanal, 2020).

The findings of this study can provide a baseline data about the awareness on preconception care of reproductive age women attending outpatient department for further research. As the study was limited only in selected hospital, the findings of the study cannot be generalized.

CONCLUSION

This study shows that majority of reproductive-age women have moderate level of awareness and least proportion of respondents had adequate level of awareness on preconception care. Preconception care related counseling and health awareness programs should be targeted for reproductive age women. Government should invest in screening test program for preconception care and engage in strategic media planning to organize educational programs for awareness regarding preconception care among reproductive age women.

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Original Article

Nurses' Knowledge regarding Patient Safety in a Private Hospital of Lalitpur

Samiksha Dhakal[1]

[1]B&B Medical Institute, Lalitpur, Nepal.

Correspondence: Samiksha Dhakal,

Email: samikshadhakal456@gmail.com,

ABSTRACT

Introduction: Patient safety is the crucial component for providing quality service to the hospitalized patient. Nurses play a pivotal role in enhancing patient safety and prevent harm. The objective of this study was to assess nurses' knowledge regarding patient safety in a private hospital, Lalitpur.

Methods: An analytical cross-sectional research design was adopted using stratified random sampling technique among eighty nurses working at B&B Hospital. A semi structured questionnaire was developed and self-administered technique was used for data collection. Ethical approval was taken from Institutional Review Committee of B & B Hospital (B&B IRC-23-41). Data was analyzed by using descriptive as well as inferential statistics.

Results: The more than half (51.2%) of respondents had good, 35% had satisfactory and 13.8% had poor level of knowledge regarding patient safety. There was significant association of working unit (p value-0.001) and CNE/training on patient safety (p value-0.01) with level of knowledge regarding patient safety.

Conclusion: Since, level of knowledge regarding patient safety was good among the nurses and it was significantly influenced by working unit and CNE/training regarding patient safety. Therefore, attention need to be paid for maintaining and upgrading quality service in relation to patient safety through continue nursing education for nurses working in different units of private hospital setup.

Keywords: Knowledge; Nurse; Patient safety;

INTRODUCTION

Patient safety is the absence of preventable harm and reduction of risk of unnecessary harm to the patients while receiving health care service from health institution (World Health Organization [WHO], 2019). The components of patient safety are crucial for providing quality nursing services. The components are Patient identification goals, Communication between caregivers, Safe use of medications, Prevention of infection, Prevention of falls, Prevention of pressure ulcers, Prevention of wrong site surgery, Incorrect procedure, Wrong person surgery, Reduction of damage associated with clinical alarm systems (Ahmed et al., 2018).

A vital and crucial component of high-quality healthcare is patient safety (Poudel et al., 2019). In order to prevent unfavorable events in healthcare settings, patient safety is a crucial aspect of healthcare quality. Delivering safe care reduces negative outcomes, such as prolonged hospital stay, a high death rate, and high medical expenses associated with patient care (Bottcher et al., 2019). The incidence of adverse event due to unsafe care is one of the ten leading causes of death and disability (WHO, 2019). As, nurses always being in the front-line health care provider 24 hourly, it is important to assess the nurse's knowledge (James et al., 2018). Therefore, this study aims to assess nurse's knowledge regarding patient safety in a private hospital of Lalitpur.

METHODS

An Analytical, cross-sectional research design was adopted. The study was conducted at B&B Hospital, Gwarko, Lalitpur which is a well-known tertiary-level trauma center with services available 24 hours a day, seven days a week. The study was conducted from April 2023 to February 2024. Ethical approval was taken from B&B Medical Institute. Administrative approval was taken from Sumeru City Hospital for pretest and B&B Hospital for main study. Written informed consent was taken from all the respondents. Privacy and confidentiality of the information was maintained throughout the study.

The study population were nurses working in different units like ICU, POW, CCU, NICU, Emergency and Neuro ICU unit. The sample size was calculated by using Cochran's formula, with a 95% confidence level and 5% permissible error and prevalence (p) of 16% (Poudel et al., 2019). Therefore, a total of 80 samples were included in this study. Proportionate stratified random sampling technique was adopted based on critical care area in

this study. From each strata (ICU, POW, CCU, NICU, Emergency and Neuro ICU units) samples were selected with equal proportion. Lottery method was used to select the sample by using the ID number of the nurses.

A semi-structured questionnaire was developed by researcher herself based on extensive literature review. The questionnaire consisted of 3 parts i.e., part I included socio-demographic characteristics, part II included professional characteristics and part III included questions related to knowledge regarding patient safety. Level of knowledge was measured by calculating the total possible score in knowledge related questions and total score was 27. The knowledge score was classified into 3 level, such as Good (>75%), Satisfactory (60-75%), Poor (<60%) (Ahmed et al., 2018).

Content adequacy of the instrument was maintained by extensive review of literature and consultation with subject experts (Ms. Sanjana Rajthala; Infection Control Nurse) and research teachers. The questionnaire was pretested in the similar population among 10 nurses working in Sumeru City Hospital, Pulchowk, Lalitpur, Nepal.

Statistical package the social science (SPSS) 20.0 version was used for data entry and analysis. Collected data was analyzed using descriptive statistical methods i.e., frequency, percentage, mean and standard deviation. Inferential statistics i.e., Chi-Square test was used to find out the association of the level of knowledge regarding patient safety with selected variables.

Table 1. Socio-demographic Characteristics of the Respondents

n=80

Variables	Number	Percent
Age Group (in years)*		
≤23	16	20.0
24-27	25	31.2
28-32	32	40.0
>32	7	8.8
*Mean ± SD = 27.22 ± 4.03		
Ethnicity		
Brahmin/Chhetri	33	41.2
Janajati	44	55.0
Terai caste	3	3.8
Marital Status		
Married	45	56.2
Unmarried	35	43.8
Religion		
Hindu	74	92.5
Non-Hindu	6	7.5
Place of Residence		
Urban	74	92.5
Rural	6	7.5

Table 1 revealed that more than one third of respondents (40%) were of age between 28-32 years with mean ±SD of 27.22 ± 4.03. More than half (55%) of respondents were Janajati, and followed by married (56.2%), Hindu (92.5%) and from urban area (92.5%).

Table 2. Professional Characteristics of the Respondents

n=80

Variables	Number	Percent
Professional Qualification		
ANM	3	3.5
PCL Nursing	32	40.0
BSN	25	31.3
BN	20	25.2
Working Unit		
POW	12	15.0
ICU	25	31.3
CCU	7	8.8
NICU	7	8.8
Neuro ICU	16	20.0
Emergency	13	16.1
Working Experience (in years)		
<1	19	23.8
1-5	32	40.0
5-10	18	22.5
>10	11	13.7
Attended CNE/Training related to pt. safety		
Yes	13	16.2
No	67	83.8
Available of Safety Measures Guidelines		
Yes	75	93.8
No	5	6.2

Table 2 shows more than one third (40%) of respondents had PCL Nursing qualification, 31.3% were working in ICU and 40% had work experience of one to five years. Similarly, 83.8% had not attended CNE/training regarding patient safety, and 93.8% responded that safety measures guideline was available in hospital.

Table 3. Respondents' Level of Knowledge regarding Patient Safety

Level of Knowledge	Number	Percent
Good (>75%)	41	51.2
Satisfactory (60-70%)	28	35.0
Poor (<60%)	11	13.8
Total	**80**	**100.0**

Table 3 depicts majority (51.2%) of respondents had good level of knowledge about patient safety.

Table 4. Different Areas of Knowledge Regarding Patient Safety

n=80

Areas of Knowledge	Mean Percentage
Meaning of patient Safety	76.0
Component of patient safety	68.8
Prevention of hazard	78.6
Factors to improve patient safety	85.0
Goal of patient safety	62.5
Nursing management of patient safety	76.50
Total Score	**73.9**

Table 4 shows that the overall mean score was 19.95 ± 3.36 which indicated that mean percentage is 73.9. The obtained mean percentage score was highest (85%) in factor to improve patient safety and lowest (62.5%) in goal of patient safety.

Table 5. Association of Knowledge regarding Patient Safety with Socio-demographic Characteristics of Respondents

n=80

Variables	Level of Knowledge		*P-value**
	Poor to Satisfactory (≤75%) No. (%)	Good (>75%) No. (%)	
Age (in years)			
≤27	18 (43.9)	23 (56.1)	0.38
>27	21 (53.8)	18 (46.2)	
Ethnicity			
Janajati	20 (45.5)	24 (54.5)	0.38
Others#	19 (52.8)	17 (47.2)	
Religion			
Hindu	37 (50)	37 (50)	0.72
Non-Hindu	2 (33.3)	4 (66.7)	
Marital Status			
Married	25 (55.6)	20 (44.4)	0.17
Unmarried	14 (40)	21 (60)	
Place of Residence			
Urban	36 (48.6)	38 (51.4)	1.00
Rural	3 (50)	3 (50)	

Pearson's Chi-square, #-Brahmin/Chettri & Terai caste*

In Table 5, there was no significant association of age, ethnicity, religion, marital status and place of residence with respondents' level of knowledge regarding patient safety.

Table 6. Association of Level of Knowledge regarding Patient Safety with Professional Characteristics of the Respondents

n=80

Variables	Level of Knowledge		*P-value**
	Poor to Satisfactory (≤75%) No. (%)	Good (>75%) No. (%)	
Professional Qualification			
PCL Nursing	19 (54.3)	16 (45.7)	0.38
Bachelor	20 (44.4)	25 (55.6)	
Working Unit			
Critical	7 (21.8)	25 (78.2)	<0.001
Highly critical	32 (66.7)	16 (33.3)	
Working Experience (in years)			
≤5	26 (51)	25 (49)	0.59
>5	13 (44.8)	16 (55.2)	
Attended CNE/Training			
Yes	11 (84.6)	2 (15.4)	0.01
No	28 (41.8)	39 (58.2)	
Safety Measures Guidelines			
Yes	36 (48)	39 (52)	0.95
No	3 (60)	2 (40)	

Pearson's Chi-square, Critical Unit- POW, CCU & Emergency & Highly Critical Unit- ICU, NICU & Neuro ICU*

Table 6 reveals that there was significant association between working unit and CNE/training in patient safety with the level of knowledge regarding patient safety. There was no significant association of professional qualification, working experience and aware of available of safety measures guidelines in hospital with respondent's level of knowledge regarding patient safety.

DISCUSSION

This study revealed that among the 80 respondents who participated in this study, more than half (51.2%) of the nurse's had good, 35% had satisfactory and 13.8% had poor level of knowledge regarding patient safety with overall mean percentage was 73.9%. This finding was supported by the study conducted in Ethiopia which reported that more than half (58.7%) of the respondents had good level of knowledge regarding patient safety (Wake et al., 2021). Whereas a study conducted in Egypt reported a contradictory finding i.e., less than half (38%) of respondents had good level of knowledge (Ahmed et al.2018).This might be due to the differences in study settings.

In this study, one of the variable significantly influencing the level of knowledge regarding patient safety was working units (p value=0.001). The finding was supported by the study conducted in Ethiopia which showed that there was significant association with working unit (p value=0.015) with level of knowledge on patient safety (Wake et al.,2021).

Another variable that has significant influence on level of knowledge regarding patient safety was CNE/ training on patient safety (p=0.01). This finding was supported by a study conducted in Egypt which revealed that there was significant association of training on patient safety (p=0.027) and level of knowledge (Ahmed et al.,2018).

In this study other variables which were not significantly associated with level of knowledge of on patient safety were age (p=0.38), ethnicity (p=0.38), religion (p=0.72), marital status (p=0.17), place of residence (p=1.00), professional qualification (p=0.38), working experience (p=0.59), and aware of availability of safety measures guidelines in hospital (p=0.95).Similar findings was found in a study

conducted in Ethiopia, i.e., age (p=0.514), qualification (p=0.410), working experience (p=0.842) and training (p=0.782) were not significantly associated with level of knowledge (Wake et al.,2021). However, findings of another study are in contrast with results of current study findings, age (p=0.010), qualification (p=0.002), and working experience (p=0.009) were significantly associated with level of knowledge (Ahmed et al., 2018).

CONCLUSION

This study concludes that the level of knowledge regarding patient safety among the nurses was good. Another critical observation made while doing the study was that the level of knowledge among nurses regarding patient safety had a significant association to the department where the nurse was working as well as whether the nurse had attended CNE/trainings on patient safety guidelines in the past. Therefore, it is highly recommended that nurses maintain their knowledge regarding patient safety by staying clinically involved in departments like critical care units where their knowledge will be challenged on a daily basis and also encouraged towards attending CNE's and trainings of various modules on patient safety.

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Original Article

Perceived Social Support and Well-being among Pregnant Women

Manisha Sah[1], Ratna Maharjan[2]

[1]Nursing Director, Suvekchya International Hospital, Sitapaila, Kathmandu

[2]Assistant. Professor, PAHS, LNC

Corresponding author:

Manisha Sah

Email- manisha2044@gmail.com

ABSTRACT

Introduction: During pregnancy, women undergo various biological, chemical, physiological, and anatomical changes which modify their quality of life and well-being. Social support in relation to health and well-being has been well established as social support influences psychological well-being among pregnant women. The aim of this study was to assess the perceived social support and well-being among pregnant women.

Methods: A cross-sectional analytical study was conducted in antenatal outpatient department of Patan Hospital, Lalitpur among 185 pregnant women selected through non- probability purposive sampling technique. Respondents were interviewed using Multidimensional Scale for Perceived Social Support and The WHO-5 well-being Index. Data analysis was performed using SPSS version 16. Frequency, percentage and mean, were calculated for perceived social support and well-being. Chi-square was employed to examine the association perceived social support with their well-being.

Results: Nearly four-fifths (78.91%) of the respondents had high perceived overall social support. Likewise, respondents reported high perceived social support from family (88.64%), friends (49.18%), and significant others (88.64%). The majority (87.56%) of the respondents had normal well-being. There was an association of perceived social support with well-being among pregnant women (P value < 0.023).

Conclusion: The study concludes that during pregnancy women gets more support from the family. Perceived social support tends to associate with their well-being.

Keywords: perceived social support; pregnant women; well-being;

INTRODUCTION

Social support is a complex and multifaceted concept referring to the voluntary action from one person toward another, promoting a positive response and comes from different sources, such as family, friends, community (Afulukwe, et al., 2017). The quality of care and support received by pregnant women during pregnancy determines the quality of delivery and maternal/neonatal health (Abdollahpour, & Keramat, 2016).

A study conducted in Iran among 385 mothers showed that mothers had poor (3.1%), moderate (27.9%), and good (69%) family support. In addition, (55%) of mothers were found to have normal well-being, while (45%) of cases showed poor well-being (Pinto, S., et al., 2017). If a woman feels supported, she is much better prepared to handle the demands of pregnancy than a woman who feels alone, isolated, and lacks social support. Increased social support positively influences pregnancy well-being (Mangaleshwari, 2014).

During pregnancy expecting mothers not only experience physiologic and hormonal changes, but also are psychologically surrounded by the concept that they may not be able to handle the upcoming new circumstances. (Mangaleshwari, 2014). Those pregnant women who receive continued care and support from their spouse and family would be less affected by problems like mental stress, depression and anxiety disorders (Maharlouei, 2016). Hence, the perceived social support helps to reduced stress and psychological distress, as well as measures of improved well-being (Afulukwe, et al., 2017).

METHODS

A cross-sectional analytical study was used to measure the association of perceived social support with level of wellbeing among pregnant women in their third trimester who visited the antenatal outpatient department at Patan Hospital, Lalitpur, Nepal, as part of routine antenatal care. The study spanned from April 2020 to May 2021. After determining the size, 185 samples were selected through non-probability purposive sampling technique from the third-trimester pregnant women who volunteered to participate. Ethical approval was obtained from the Institutional Review Committee

(IRC) of PAHS, Lalitpur (IRC approval No. PNW2008141418, August 14, 2020). Prior to data collection, permission was secured from the Nursing Director, the Head of the Antenatal Clinic, and the OPD in-charge. Respondents meeting the inclusion criteria were approached to explain the study's objectives, benefits, and risks, after which informed written consent was obtained from each respondent. Data were collected through face-to-face interviewed using Multidimensional Scale for Perceived Social Support and The WHO-5 wellbeing Index. Due to the COVID-19 situation, data collection adhered to safety protocols, including maintaining social distance, wearing masks, and using hand sanitizer.

Data collection took place from 14th February 2021 to 19th March 2021. Questions concerning the respondents' socio-demographic characteristics were developed by the researcher based on a review of the literature. However, the Multidimensional Scale for Perceived Social Support (MSPSS) was employed to assess perceived social support. It comprises three subscales, each addressing a different source of support, and demonstrates strong factorial validity: (a) Family, (b) Friends, and (c) Significant Other. The MSPSS utilizes a 7-point Liker scale (1 = Very Strongly Disagree, 2 = Strongly Disagree, 3 = Mildly Disagree, 4 = Neutral, 5 = Mildly Agree, 6 = Strongly Agree, and 7 = Very Strongly Agree). The Total Scale score is derived by summing across all 12 items, then dividing by 12, resulting in a range from 12 to 84. Respondents scoring between 1 and 2.9 are categorized as having low support, scores between 3 and 5 indicate moderate support, and scores between 5.1 and 7 indicate high support (Zimet, et. All., 1988).

The World Health Organization-5 Well-being Index was utilized to assess well-being. The WHO-5 Well-being Index is a 6-point Liker scale where 0 = At no time, 1 = Some of the time, 2 = Less than half the time, 3 = More than half the time, 4 = Most of the time, and 5 = All of the time. If respondents' mean scale scores are below 13, it indicates poor well-being, while scores above 13 indicate normal well-being. The raw score ranges from 0 indicating absence of well-being to 25 representing maximal well-being (Abdollahpour et al,2016). Data entry and analysis were conducted using SPSS version 16. Descriptive statistics were employed for data analysis.

RESULTS

Table 1. Respondents' Socio-demographic Characteristics

n=185

Variables	Number	Percent
Education Level		
No education	6	3.2
Primary education	24	12.9
Secondary education	93	50.2
University Level	62	33.5
Occupation		
Home maker	122	65.9
Agriculture	3	1.6
Business	38	20.5
Service	20	10.8
Labor	2	1.1
Type of Family		
Nuclear	70	37.8
Joint	113	61.1
Extended	2	1.1
Number of children		
No children	117	63.2
One children	64	34.6
Two children and above	4	2.2

Table 1 revealed that the education of the respondents shows that half of the respondents (50.2%) had completed secondary education. The highest percentage (65.9%) of respondents were homemakers. The majority of the respondents were belonged to nuclear families (61.1%) and more than half of the respondents (63.2%) had no children.

Table 2. Respondents' Overall Score on Well-being

n=185

Well-being	Min/Max	Number	Percent	Mean± S.D.
Poor well-being (0-13)	7\25	23	12.4	18.1 ± 4.2
Normal wellbeing (14-25)		162	87.6	

Table 2 shows the majority of respondents (87%) had normal well-being with a mean score of 18.05 for well-being.

Table 3. Respondents on Well-being Status

n=185

Statements	At no time	Some of the time	Less than half of the time	More than half of the time	Most of the time	All of the time
	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)
You have felt cheerful and in good spirits.	4(2.2)	14(7.6)	11(5.9)	51(27.6)	55(29.7)	50(27.0)
You have felt calm and relaxed	1(0.5)	9(4.9)	20(10.8)	55(29.7)	41(22.2)	59(31.9)
You have felt active and energetic	3(1.6)	22(11.9)	20(10.8)	55(29.7)	36(19.5)	49(26.5)
You woke up felling fresh and rested	2(1.1)	16(8.6)	18(9.7)	48(25.9)	44(23.8)	57(30.8)
Your daily life has been filled with things that interest you	2(1.1)	6(3.2)	11(5.9)	39(21.1)	45(24.3)	82(44.3)

Table 3 represent that the 29.7% of the respondents were answered more than half of the time felt calm and relaxed as well as felt active and energetic. Similarly 29.7% of the respondents were answered most of the time felt cheerful and in good spirits. Likewise 44.3% were answered all of the time that daily life has been filled with things that interested. Similarly 10.8% respondents were answered less than half of the felt calm and relaxed. Likewise 11.9% were answered some of the time felt active and energetic and only 1.6% respondents were answered at no time felt active and energetic.

Table 4. Association between Perceived Social Support and Well-being of respondents

n=185

Perceived Social Support	Well-being		*X^2 Value*	*P-value*
	Poor well-being No. (%)	Normal well-being No. (%)		
Moderate support	9(23.1)	30(76.9)	5.14	0.023
High support	14(9.6)	132(90.4)		

**P<0.05 is considered statistically significant*

Table 4 shows that there was an association between perceived social support and well-being among pregnant women ($p = 0.023$) at a 95% confidence level ($p < 0.05$).

DISCUSSION

This study aimed to find out perceived social support and well-being among pregnant women visiting the antenatal outpatient department at Patan Hospital in Lalitpur. The study revealed that majority (78.91%) of the respondents had high perceived social support, 21.01% of respondents had moderate perceived social support, and none of the respondents had low perceived social support. Comparing these results to a similar study done in Nigeria, 62.1% of respondents had adequate social support, 24.9% of respondents had moderate social support, and 13.0% had poor social support among 345 pregnant women (Abdollahpour, & Keramat, , 2016). The result of this study is contradicted by a study done in Mexico among 92 pregnant women. Evaluating social support during pregnancy, it was determined that 95.6% have support, and 4.35% have no support (Colli-Chan, Rodriguez-Hipolito, ,G.A, et al., 2016).

The respondents 'mean score for the WHO-5 well-being scale (range 5 - 25) was 18.05. Moreover, more than four fifth of the respondents (87%) reported normal well-being, while 12.4% indicated poor well-being. This study supported by research conducted in India, where findings showed 97.8% of the antenatal women were having normal psychological well-being and 2.24% showed evidence of distress (Abdollahpour, &Keramat. 2016). Similarly, a study in Chicago involving 95 pregnant women found that higher levels of psychological well-being (Maharlouei, N , 2016). However, this finding contradicts the results of a study conducted in Iran among 358 pregnant women, which showed that 55% exhibited normal well-being, while 45% indicated poor well-being (Abdollahpour, &Keramat, 2016).

It was found that there was an association between the level of perceived social support and well-being among pregnant women ($p = .023$). Comparing this result to a similar study done in Turkey; there was a significant association between psychological well-being and perceived social support among pregnant women ($p = 0.000$) (Yuksel, & Bayrakci, (2019). Likewise, a study conducted in Iran showed that there was a moderately positive association between perceived social support and psychological well-being among pregnant women ($p < .05$) (Abdollahpour, S, &Keramat, 2016).

CONCLUSION

The study concludes that perceived social support tends to influence well-being among pregnant women. For the well-being of pregnant women Development of an education program for husband and families can be designed so, they will provide further support to maintain well-being of pregnant women.

DECLARATION OF CONFLICT OF INTEREST

None

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Perception towards Learning Environment among Nursing Students in a Private College of Lalitpur

Aliza Suyal[1], Jayanti Gautam[2]

[1]B&B Medical Institute, Gwarko, Lalitpur

[2]Assistant Professor, B&B Medical Institute, Gwarko, Lalitpur

Correspondence: Aliza Suyal

Email: alizasuyal7@gmail.com

ABSTRACT

Introduction: The learning environment is crucial in determining students' academic achievements. A well-designed learning environment influences the positive outcomes for graduates and better preparation for professional life. This study aims to assess the perception of the learning environment among nursing students.

Methods: A descriptive cross-sectional design was conducted among 78 nursing students using probability, proportionate stratified random sampling at B&B Medical Institute. Dundee Ready Educational Environment Measure (DREEM) scale was used to collect the data in September 2023. Ethical approval was taken from the IRC of B&B Hospital. Data was analyzed by using descriptive and inferential statistics (one-way ANOVA).

Results: Out of 78 students' majority (80.1%) had a positive perception of their learning environment. The total mean score was 135.46±18.31 out of 200 items indicating a positive environment whereas the mean score between 101-150 indicates a more positive than negative environment. The difference in perception of the learning environment among nursing programs was (p=0.01). Similarly, the mean difference between perception of learning environment and perception of learning (p=0.005), academic self-perception (p=0.001), perception of atmosphere (p=0.008) among different nursing programs

Conclusion: The study revealed that majority of students have positive perception towards learning environment, but some factors like teachers being authoritarian and overemphasis on factual learning could be improved.

Keywords: Perception; learning environment; nursing students;

INTRODUCTION

The term "learning environment" refers to the varied settings, cultures, and backgrounds in which students begin their educational journeys. The academic surroundings refer to numerous physical sets, contexts, and values wherein college students get hold of an education (Akdeniz et al., 2019).The learning environment has a significant impact upon the way students learn, develop their professional skills, and perform academically. Students' perceptions of the learning environment have a significant role in determining the level of education since they offer important insights into its positive and negative aspects (Rokhafrooz et al., 2022).Among the most significant areas of medical research, nursing is such profession that requires highly developed professionals and scientific ability. In recent years, to improve the quality of nursing education, a significant amount of emphasis has been provided to the perceptions and opinions of nursing students as one of the primary stakeholders of the nursing education program (Shrestha et al., 2019).Assessing the points of view and opinions of students as the main focus of such education is one of the scientific techniques to assess the quality education provided in this field (Yoo & Kim, 2019). Therefore, this study aims to assess the perception towards learning environment among nursing students.

METHODS

A cross-sectional analytical study was conducted in September 2023 among nursing students of B&B Medical Institute, Gwarko, Lalitpur which is a private nursing college established on 2005 AD with the affiliation to Purbanchal University and CTEVT. Ethical approval was taken from B&B Hospital IRC. Formal permission was taken from research committee of B&B Medical Institute. Informed consent was taken from all the respondents. Confidentiality of the information was maintained throughout the study.

The nursing students studying in PBNS, BNS and PCL of B&B Medical Institute were the study population. The sample size was calculated by using Cochran's formula, with a 95% convenience level and 5% permissible error and prevalence (p) of 81.7% (Pandey Bista et al., 2020). There was total 5 strata; PBNS 2nd year (24), PBNS 3rd year (26), BSN 2nd

year (7), BSN 4th year (19), PCL 3rd year (40). There was total 116 students. Proportionate stratified random sampling technique was adopted in this study; PBNS 2nd year (16), PBNS 3rd year (17), BSN 2nd year (5), BSN 4th year (13), PCL 3rd year (27). Lottery method was used to select the sample by using the roll number of the nursing students. Therefore, a total of 78 samples were included in this study.

A standard structured instrument, DREEM was established in Dundee, Scotland, UK. It is a universally validated, multi- dimensional, non-culturally specific tool. It consists of 50 questions with total score of 200 divided into five subscales. The five subscales include Students' Perception of Learning (SPL) with 12 items, Students' Perception of Teachers (SPT) with 11 items, Students' Academic Self-perception (SASP) with 8 items, Students' Perception of Atmosphere (SPA) with 12 items, Students' Social Self-perception (SPSS) with 7 items. It was divided into two parts. Part I included questions related to socio-demographic and academic related data which includes 5 items. Part II included The Dundee Ready Educational Environment Measure (DREEM) inventory which is a five-point Likert scale (0=strongly disagree, 1=disagree, 2=Uncertain, 3=agree, 4=strongly agree) out of 50 statements 9 of them (8,12,15,16,21,23,34,39 and 45) were negative statements scored reversely. For the individual items, those with mean scores of 3.5 or higher are thought to be particularly strong areas, those with mean scores of 2.0 or lower require special attention, and those with mean values between 2 and 3 are thought to be areas where the educational environment could be improved (Miles et al., 2012).Level of perception was measured by calculating the total possible score in Likert scale and classified into 4 categories with a total score of 200 The score ranging from 0-50 indicates very poor perception, 51-100 indicates plenty of problems, 101-150 indicates more positive than negative perception and 151-200 indicates excellent perception of learning environment (Roff et al., 1997).

The questionnaire was pretested in a similar population among 10% of the total sample at Nagarik College of Health Science. The Cronbach's alpha coefficient value was 0.78, which indicated good and acceptable.

All the data were over-viewed checked and verified for its completeness, consistency and accuracy, coding and organizing was done by data entry using the software program Excel and the data was transferred to Statistical Package for the Social Sciences version 20.0. Data were analyzed using Statistical Package for the Social Sciences version 20.0. Descriptive statistics like frequency, percentage, mean and standard deviation for socio-demographic and academic related variables and inferential statistics i.e., One-way ANOVA test which was used to identify the differences in the perception of overall learning environment based on the selected variables. Data were analyzed and interpreted according to the objectives of the research questionnaires.

RESULTS

Table 1. Socio-demographic and Academic Variables of the Respondents

n=78

Variables	Number	Percent
Age (completed years)#		
≤ 20	23	29.5
21 – 25	48	61.5
>26	7	9
Gender		
Male	1	1.3
Female	77	98.7
Ethnicity		
Brahmin/Chhetri	44	56.4
Janajati	30	38.5
Others	4	5.1
Nursing Program		
PBNS 2nd year	16	20.5
PBNS 3rd year	17	21.8
BSN 2nd year	5	6.4
BSN 4th year	13	16.7
PCL 3rd year	27	34.6

Mean ± SD=22.21±2.55, Min-Max (17-28 years)

Table 1 illustrates that out of 78 respondents, majority of the respondents 48 (61.5%) were of the age group 21 to 25 years and the mean age with SD was (22.21±2.55). Almost all 77 (98.7%) of the respondents were female. More than half of them 44 (56.4%) were from the ethnic group Brahmin/Chhetri. There were 27 (34.6%) respondents from PCL 3rd year, 17 (21.8%) respondents from PBNS 3rd year, 16(20.5%) respondents from PBNS 2nd year, 13 (16.7%) respondents from BSN 4th year, 5(6.4%) respondents from BSN 2nd year.

Table 2. Respondents' Perception towards Subscale of Learning Environment

n=78

Subscales	Score range	No. (%)	Mean Score ± S.D.
Perception of Learning			
Very poor	0-12	-	34.10±4.26
Teaching is viewed negatively	13-24	-	
A more positive perception	25-36	58(74.4)	
Teaching highly thought of	37-48	20(25.6)	
Perception of Teacher			
Abysmal	0-11	-	28.80±4.25
In need of some retraining	12-22	4(5.1)	
Moving in the right direction	23-33	63(80.8)	
Model teachers	34-44	11(14.1)	
Academic Self-Perception			
A feeling of total failure	0-8	-	24.30±3.66
Many negative aspects	9-16	2(2.6)	
Feeling more on the positive side	17-24	43(55.1)	
Confident	25-32	33(42.3)	
Perception of Atmosphere			
A terrible environment	0-12	2(2.6)	31.23±6.83
There are many issues which need changing	13-24	6(7.7)	
A more positive attitude	25-36	60(76.9)	
A good feeling overall	37-48	10(12.8)	
Social Self-Perception			
Miserable	0-7	-	17.01±3.26
Not a nice place	8-14	20(25.7)	
Not too bad	15-21	53(67.9)	
Very good socially	22-28	5(6.4)	

Table 2 depicts the majority of the respondents 58 (74.4%) had a more positive perception with the mean score of 34.10 out of 48 items towards the perception of learning. Most of them 63 (80.8%) had a perception towards teachers moving in the right direction with the mean score of 28.80 out of 44 items. More than half of them 43 (55.1%) had a feeling more on the positive side towards academic self-perception with the mean score of 24.30 out of 32 items. Most of them 60 (76.9%) had a more positive attitude toward their atmosphere with the mean score of 31.23 out of 48 items. Similarly, the majority of them 53 (67.9%) responded not too bad regarding social self-perception with the mean score of 17.01 out of 28 items.

Table 3. Level of Perception of Learning Environment according to DREEM

n=78

Level of Perception of Learning Environment	Score range	No. (%)	Mean Score ± S.D.
Very poor	0-50	-	135.46±18.31
Plenty of problems	51-100	2(2.6)	
More positive than negative	101-150	64(80.1)	
Excellent	151-200	12(17.3)	

Table 3 illustrates the majority of the respondents 64(80.1%) had more positive than negative perception towards the learning environment, 12(17.3%) of the respondents had excellent perception and only 2(2.6%) had the perception of plenty of perception towards learning environment. The mean perception score with SD was (135.46±18.31) out of 200 which indicated a more positive than negative perception.

Table 4. Difference in Mean Score of Perception of Learning Environment among Three Nursing Program

n=78

Perception of Learning Environment	Program	Mean ± S.D.	F test value	*P-value*
Perception of Learning (Maximum Score =48)	PCL	34.96±4.66	5.775	0.005*
	PBNS	34.93±3.38		
	BSN	31.27±4.07		
Perception of Teacher (Maximum Score = 44)	PCL	29.11±5.08	0.277	0.759
	PBNS	28.90±3.31		
	BSN	28.16±4.59		
Academic Self-perception (Maximum Score = 32)	PCL	26.22±3.75	7.814	0.001*
	PBNS	23.81±3.03		
	BSN	22.33±3.32		
Perception of Atmosphere (Maximum Score =48)	PCL	32.96±7.26	5.088	0.008*
	PBNS	32.12±4.27		
	BSN	27.00±8.43		
Social Self-perception (Maximum Score = 28)	PCL	17.11±3.48	1.535	0.22
	PBNS	17.54±3.06		
	BSN	15.88±2.76		
Overall Perception on Learning Environment (Total score=200)	PCL	140.37±21.09	4.678	0.01*
	PBNS	137.33±11.99		
	BSN	124.66±19.97		

**One way ANOVA, Significant at p-value<0.05*

Table 4 shows the perception of learning which was significantly different (p=0.005) among PCL, PBNS, and BSN (p=0.005). The academic self-perception was also significantly different with (p=0.001) among PCL, PBNS, and BSN (p=0.001). The perception of the atmosphere was significantly different among PCL, PBNS, BSN(p=0.008). The perception of the teacher and social self-perception were not significantly different with (p=0.22) among PCL, PBNS, BSN. Overall perception was significantly different with (p=0.01) among PCL, PBNS, BSN (p=0.01) and highest mean score of PCL which was 140.37 out of 200.

Table 5. Difference in Mean Score of Perception according to Socio-demographic and Academic Variables

n=78

Variables	Number	Perception Mean ± S.D.	F test value	*P-value*
Age				
≤ 20	23	138.91±25.31		
21-25	48	133.95±15.30	2.165	0.12
>25	7	134.42±7.34		
Ethnicity				
Brahmin/Chhetri	44	138.38±18.00		
Janajati	30	132.63±19.03	2.651	0.07
Others	4	124.50±9.46		
Nursing Program				
PCL	27	140.37±21.09		
PBNS	33	137.33±11.99	4.679	<0.01*
BSN	18	124.67±19.97		
Academic year				
2nd year (PBNS, BSN)	21	129.42±20.66		
3rd year (PBNS, PCL)	44	138.79±18.34	1.963	0.14
4rth year (BSN)	13	133.92±11.26		

** One way ANOVA, Significant at p-value<0.05; Others: Muslim, Madhesi*

Table 5 depicts the difference in overall perception score among socio-demographic and academic variables where the age group of less than 20 had the highest mean score of 138.91/200 and (p=0.12) which was not significantly different. Similarly, an ethnic group of Brahmin/Chhetri had the highest mean score of 138.38/200 (p=0.07) which showed no significant difference. Respondents of 3rd academic year had the highest mean score of 138.79/200 (p=0.14) which showed no significant difference between the academic years. Respondents of PCL had the highest mean score of 140.37 (p<0.01) which indicated a highly significant difference between the three-nursing program and overall perception.

DISCUSSION

Out of 78 respondents, majority of the respondents 48 (61.5%) were of the age group 21 to 25 years and the mean age with SD was (22.21±2.55). Almost all 77 (98.7%) of the respondents were female. More than half of them 44 (56.4%) were from the ethnic group Brahmin/Chhetri. There were 27 (34.6%) respondents from PCL 3rd year, 17 (21.8%) respondents from PBNS 3rd year, 16(20.5%) respondents from PBNS 2nd year, 13 (16.7%) respondents from BSN 4th year, 5(6.4%) respondents from BSN 2nd year.

This study finding revealed that most of the respondents 64 (80.1%) had more positive than negative perception towards learning environment. The overall DREEM mean score was 135.46 out of 200 which indicates students' perception is more positive than negative. This finding is consistent with the finding of the study conducted in various nursing colleges in Tunisia with DREEM mean score was 111.92 (Boukhris et al., 2022) and 119 (Victor et al., 2017), DREEM score of 134.37 at Institute of Medicine (Pandey Bista et al., 2020), Tribhuvan University, DREEM score of 142.64 at Patan Academy of Health Sciences(Samson et al., 2021).

In the current study, the mean score with SD of students' perception of learning was 34.10±4.26 which indicated a more positive perception. This finding is in line with the study conducted among nursing students of Lumbini Medical College and Teaching Hospital (LMCTH) with the mean score of 35.29 and College of Medical Sciences (CMS) with the mean score of 34.91 which also indicates a more positive perception (Garbuja et al., 2020).The present study finding in the subscale of students' perception of teacher had has the mean score with SD of 28.80±4.25 which indicates moving in the right direction. The study conducted at Adesh Institute of Medical Sciences and Research had the mean score of 24.58 which also indicates moving in the right direction (Kaur et al., 2021).The result of the present finding in the subscale of students' academic self-perception had has the mean score with SD of 24.30±3.66 which indicates feeling more on the positive side. Similar study was conducted among 172 nursing students at Maharajgunj Nursing Campus

with the mean score of academic self-perception was 24.99 (Koirala et al., 2019).

In the current study, the subscale of students' perception of atmosphere had the mean score with SD of 31.23±6.83 which indicates a more positive attitude towards atmosphere. This finding is consistent with the finding of the study conducted at Lahore School of Nursing with the score of 28.16 which also indicates a positive environment (Rawas & Yasmeen, 2019).The present finding in the subscale student's social self-perception mean score with SD was 17.01±3.26 which indicates not too bad. In accordance to the study conducted among 261 nursing students at Ain Shams University where the mean score of students' social self-perception was 19.5 (Fawzia et al., 2018).

There was statistically significant mean difference found among three nursing programs i.e., PCL, BSN and PBNS and overall students' perception of learning environment (p=0.01), Students' Perception of Learning (SPL) (p=0.005), Students' Academic Self-perception (SASP) (p=0.001), Students' Perceptions of Atmosphere (SPA) (p=0.008) and whereas no significant difference in Students' Perceptions of Teachers (SPT) (p=0.759) and Students' Social Self-perception (SSSP) (p=0.22). A similar study was conducted among 289 nursing students at Patan Academy of Health Science, the significant mean difference among educational program of overall perception on learning environment was (p=0.01), SPL (p=0.24), ASP (p=0.00), SPA (p=0.01), SPT (p=0.00) and SSSP (p=0.00) respectively (Samson et al., 2021).

CONCLUSION

The students' perception towards the learning environment is found to be more positive than negative. There were significant differences between the three nursing programs (PCL, PBNS, BSN) and perception of learning, academic self-perception, perception of atmosphere, and perception of learning environment. The students have positive perceptions towards learning teacher, atmosphere, academic and social environment, but some factors like teachers being authoritarian and overemphasis on factual learning could be improved. It would be better if group interaction and counseling programs were provided for the improvement of social self-perception.

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Original Article

Perception towards Nursing Profession among Nursing Students in a Private College of Lalitpur

Aakriti Shrestha[1]

[1]B&B Medical Institute, Gwarko, Lalitpur

Correspondence: Aakriti Shrestha, B&B Medical Institute, Lalitpur, Nepal,

Email: shresthaaakriti688@gmail.com, Phone: +977 9840559933

ABSTRACT

Introduction: Nursing profession is a satisfied and rewarding profession that plays a vital role and have crucial impact on lives of patient as they have unique qualities and skills. Nursing education should be carefully designed to attract new nurses and maintain professionalism in nursing practice in order to advance the nursing profession. Hence, this study assesses the perception towards nursing profession among nursing students in a private college of Lalitpur.

Methods: A cross-sectional study was adopted using probability, proportionate stratified random sampling with 81 nursing students studying at B&B Medical Institute. A self-administered, semi-structured and self-developed was used to collect data during September 17-30, 2023. Prior to data, ethical approval was taken from IRC of BBH. Data was analyzed with descriptive as well as inferential statistics (Chi-square test).

Results: The perception towards nursing profession were positive (92.6%) among nursing students studying in BMI. There was no significant association between the level of perception towards nursing profession and selected variables.

Conclusion: It is concluded that nursing students have higher level of perception towards their profession. Therefore, attention need to be paid by college authority of institution through proper advertisement, health education and awareness towards nursing profession for enhancing positive perception of nursing students. Hence, such type of study can be conducted time to time to aware of status of perception among nursing students towards nursing profession.

Keywords: nursing students; nursing profession; perception;

INTRODUCTION

The nursing is a profession that encompasses autonomous and collaborative care of individuals of all ages, families, groups, and communities, sick or well, and in all settings. It includes the promotion of health, the prevention of illness, and the care of ill, disabled, and dying people [World Health Organization (WHO), 2019]. Nursing education should be carefully designed to attract new nurses and maintain professionalism in nursing practice in order to advance the nursing profession (Fathi, Dalal, Akel, Wasil, & Alzghoul, 2015). People's misconceptions regarding the duties carried out by nursing professionals led to the perception that the nursing profession was undervalued and poorly understood by society (Hoeve et al., 2013). Furthermore, there is a continuous need to promote the image of skilled nursing, strengthen its reputation in society, and act as to get students to choose nursing as a career and stick with it (Ibrahim et al., 2015). Therefore, the objective of this study is to assess the perception towards nursing profession among nursing students in a private college of Lalitpur.

METHODS

A cross-sectional study was conducted at B&B Medical Institute, Gwarko, Lalitpur. It is a well-known private nursing college which was established on 2005 AD. The study was conducted during April 2023 to February 2024. Ethical approval was taken from B&B Medical Institute. Administrative approval was taken from Institutional Review Committee of B&B Hospital. Informed consent was taken from each respondent. Prior to data collection, confidentiality of the information was maintained throughout the study.

The nursing students studying in PCL 3rd year (40), PBNS 2nd year (24) and 3rd year (26) and BSN 2nd year (7) and 4th year (19) were the study population. Newly enrolled nursing students were excluded because the exact number of students was unavailable, there was representor of that group and there wasn't any contamination. The sample size was calculated by using Cochran's formula, with a 95% confident level and 5% permissible error and prevalence (p) of 78%(Kaur & Kaur, 2020). Therefore, a total of 81 samples were included in this

study. Probability, proportionate stratified random sampling technique was adopted in this study. Lottery method was used to select the sample by using the roll number of the nursing students. Therefore, each respondents had equal chances of being selected and from each strata samples were selected with equal proportion.

Self-developed, semi- structured questionnaire was used in this study. It was divided into 4 parts. Part I included questions related to sociodemographic characteristics (8), part II included questions related to academic characteristics (5), part III included questions related to parent's characteristics (5), part IV included questions related to perception towards nursing profession (24) among which 6 of them (4, 7, 11, 15, 17 and 19) was reverse coded. It is 5 points Likert-type scale ranging from 1(strongly disagree), 2(disagree), 3(neutral), 4(agree) and 5(strongly agree). Questionnaire was created based on several earlier studies of similar nature and then adjusted to add significant factors for this study and classified into 2 categories:

Positive perception (≥50%)

Negative perception (<50%)

(AyeleWoldasemayat et al., 2022)

Content validity of the instrument was maintained by extensive review of literature and by consultation with research advisor, research teachers and experts from related respective field. The questionnaire was pretested in the similar population among 10 nursing students studying in Nagarik College of Health Science.

All the data were over-viewed checked and verified for its completeness, consistency and accuracy, coding and organizing was done by data entry using the software program Excel and the data was transferred to Statistical Package for the Social Sciences version 20.0. Data was analyzed using descriptive statistics like frequency, percentage, mean and standard deviation for socio-demographic, academic and parent's characteristics. Data was analyzed using appropriate inferential statistics. Pearson chi-square test was used to find out the association between the level of perception and selected variables. Data was presented using academic table and interpreted according to the objectives of this study.

RESULTS

The study revealed that majority (55.6%) of age group was 21-25 years and mean aged was (22.26 ± 2.96). Similarly, majority of the respondents belonging to female (98.8%) between gender, urban areas (93.8%) between place of residence, unmarried (88.9%) among marital status, brahmin/Chhetri (46.9%) among ethnicity, hindu (87.7%) between religion, nuclear family (76.5%) between type of family and first child (58.0%) among birth order.

Table 1. Respondents' Level of Perception towards Nursing Profession

Level of Perception	Number	Percent
Positive Perception (≥50%)	75	92.6
Negative Perception (<50%)	6	7.4
Total	**81**	**100.0**

Table 1 reveals that out of 81 respondents, majority of the respondents (92.6%) had positive perception towards their nursing profession.

Table 2. Respondents' Perception towards Nursing Profession

n=81

Statements	SA No. (%)	A No. (%)	N No. (%)	D No. (%)	SD No. (%)	Mean ± S.D.
Highly renowned profession	40(49.4)	32(39.5)	6(7.4)	2(2.5)	1(1.2)	4.33 ± 0.82
Considered one of the respectful professions	20(24.7)	22(27.2)	13(16)	9(11.1)	17(21)	3.23 ± 1.48
Public has positive image	10(12.4)	16(19.8)	30(37)	12(14.8)	13(16)	2.98 ± 1.22
Only for women *	-	3(3.7)	2(2.5)	36(44.4)	40(49.4)	4.39 ± 0.72
Better chance of getting marriage offers	6(7.4)	20(24.7)	11(13.6)	20(24.7)	24(29.6)	2.56 ± 1.34
An empathetic profession	28(34.5)	42(51.9)	5(6.2)	6(7.4)	-	4.14 ± 0.83
A hard profession that doesn't have sufficient value *	31(38.3)	14(17.3)	18(22.2)	14(17.3)	4(4.9)	2.33 ± 1.28
A vital component of every health care setting	61(75.3)	19(23.5)	1(1.2)	-	-	4.74 ± 0.47
Its own autonomous body	31(38.3)	32(39.5)	14(17.3)	4(4.9)	-	4.11 ± 0.87
Plays a vital role in patients' fast recovery	67(82.7)	14(17.3)	-	-	-	4.83 ± 0.38
Waste time without doing anything *	3(3.7)	4(4.9)	3(3.7)	27(33.4)	44(54.3)	4.29 ± 1.02
A great chance for self-development	38(46.9)	21(25.9)	6(7.4)	11(13.6)	5(6.2)	3.94 ± 1.29
Based on ethical standards of care which provide quality nursing care	50(61.7)	29(35.8)	1(1.2)	-	1(1.2)	4.57 ± 0.65
Compatible with other professions	12(14.8)	20(24.7)	19(23.5)	20(24.7)	10(12.3)	3.05 ± 1.26
Means working under a doctor's prescription without question *	2(2.5)	10(12.3)	15(18.5)	23(28.4)	31(38.3)	3.89 ± 1.13
Priority of choice	8(9.9)	36(44.4)	15(18.5)	11(13.6)	11(13.6)	3.23 ± 1.22
Destroy nurse's personal life *	4(4.9)	24(29.6)	19(23.5)	26(32.1)	8(9.9)	3.12 ± 1.09
More demand and global scope	45(55.6)	31(38.3)	3(3.7)	2(2.4)	-	4.47 ± 0.69
Don't get as much praise as they deserve *	47(58.0)	23(28.4)	4(4.9)	3(3.7)	4(4.9)	1.69 ± 1.07
Admirable choice	10(12.3)	35(43.2)	15(18.5)	16(18.5)	6(7.4)	3.35 ± 1.14
Demands dedication and commitment to lifelong learning	28(34.6)	33(40.7)	5(6.2)	11(13.6)	4(4.9)	3.86 ± 1.18
Quite expensive to pursue nursing degree	25(30.9)	36(44.4)	10(12.3)	8(9.9)	2(2.5)	3.91 ± 1.03
Opportunities for career advancement in aboard	48(59.3)	15(18.6)	1(1.2)	5(6.2)	12(14.8)	4.01 ± 1.49
Opportunity to serve humanity	56(69.1)	24(29.6)	1(1.2)	-	-	4.68 ± 0.49
Total score: 24 statements						**3.74 ± 0.43**

*SA: Strongly Agree; A: Agree; N: Neutral; D: Disagree; SD: Strongly Disagree; *: Negative Statements*

Table 2 depicts that out of 81, overall mean score was 3.74 ± 0.43 out of 5. The obtained mean score was highest (4.83 ± 0.38) on perception of plays a vital role in patients' fast recovery and lowest (1.69 ± 1.07) on perception of don't get as much praise as they deserve.

Table 3. Association between Level of Perception towards Nursing Profession and Socio-demographic Characteristics

n=81

Variables	Level of Perception		*X² Value*	*P-value*
	Lower No. (%)	**Higher No. (%)**		
Age (in completed years)				
≤23	3(5.6)	51(94.4)	0.20	0.65
>24	3(11.1)	24(88.9)		
Place of Residence				
Urban	5 (6.6)	71(93.4)	0.05	0.82
Rural	1 (20)	4(80)		
Marital Status				
Married	2(22.2)	7(77.8)	1.27	0.26
Unmarried	4(5.6)	68(94.4)		
Ethnicity				
Brahmin/Chhetri	2(5.1)	37(94.9)	0.11	0.74
Others	4(9.5)	38(90.5)		
Religion				
Hindu	5 (7)	66 (93)	-	1.00
Non-Hindu	1 (10)	9 (90)		
Types of Family				
Nuclear Family	3 (4.8)	59 (95.2)	1.19	0.27
Joint Family	3 (15.8)	16 (84.2)		
Birth Order				
First Child	3 (6.4)	44 (93.6)	-	1.00
Second Child or above	3 (8.8)	31 (91.2)		

Continuity correction

Table 3 showed that there was no association between level of perception and age, place of residence, marital status, ethnicity, religion, types of family and birth order.

Table 4. Association between Level of Perception towards Nursing Profession and Academic Characteristics

n=81

Variables	Level of Perception		X^2 Value	P-value
	Lower No. (%)	Higher No. (%)		
Academic Program				
PCL Nursing	2(7.1)	26(92.9)	-	1.00
Bachelor	4(7.5)	49(92.5)		
Type of School				
Government	2(16.7)	10(83.3)	0.53	0.47
Private	4(5.8)	65(94.2)		
Reason to Join nursing				
Self-Motivated	2(4)	48(96)	1.10	0.29
Forced by Family Members	4(12.9)	27(87.1)		
Interested Area where They Work after Course				
In College	4(10.8)	33(89.2)	0.42	0.52
In Clinical	2(4.5)	42(95.5)		
Family Members/Relative in Nursing				
Yes	2(5.4)	35(94.6)	0.04	0.84
No	4(9.1)	40(90.9)		

Continuity correction

Table 4 showed that there was no association between level of perception and academic program, type of school, reason to join nursing, interested area where they work after course and family members/relative are engaged in nursing.

Table 5. Association between Level of Perception towards Nursing Profession and Respondents' Parent's Characteristics

n=81

Variables	Level of Perception		X^2 Value	P-value
	Negative No. (%)	Positive No. (%)		
Father's Qualification				
Up to Basic Level	3(14.3)	18(85.7)	0.84	0.36
Higher Level	3(5)	57(95)		
Father's Occupation				
Work for Others	2(6.9)	27(93.1)	-	1.00
Self-Employed	4(7.7)	48(92.3)		
Mother's Qualification				
Up to Basic Level	4(12.5)	28(87.5)	0.03	0.86
Higher Level	2(4.1)	47(95.9)		
Mother's Occupation				
Housework	2(5.4)	35(94.6)	0.04	0.84
Others	4(9.1)	40(90.9)		
Family Income (per year)				
<1 lakh	1(2.5)	39(97.5)	1.54	0.21
Others	5(12.2)	36(87.8)		

Continuity correction

Table 5 showed that there was no association between level of perception towards nursing profession and father's qualification and occupation, mother's qualification and occupation and family income.

DISCUSSION

This study revealed that among the 81 respondents who participated in this study, almost all (92.6%) had positive perception. This finding is consistent with the finding of the study conducted in Bathinda, Indonesia among 200 respondents where (98%) had favorable perception towards nursing profession(Kaur & Kaur, 2020). Similarly this study is consistent with the study conducted in Wardha, India among 497 nursing students, (95.97%) of participants had positive attitude(Humane, 2022). Other one study conducted in India among 434 nursing students, (99%) of the subjects had favorable attitude towards nursing profession(Mohanasundari, 2019). Similarly this study is consistent with the study conducted in Kosovo among 130 nursing students, (82.3%) of respondents had positive perception towards nursing profession(Haxhija et al., 2021).

This study disclosed that there was no association between level of perception and age, gender, place of residence, marital status, ethnicity, religion, types of family, birth order, academic program, type of school, reason to join nursing, interested area where they work after course, family members/relative in nursing, father's qualification, father's occupation, mother's qualification, mother's occupation and family income. The findings is also consistent with the study conducted in Bathinda, India where there was no statistically significant association between demographic variables (age, gender) and level of perception towards nursing profession(Kaur & Kaur, 2020). Similarly, findings is also consistent with the study conducted in Kerala, India where there was no significant association between socio demographic variables and perception of 1st year and 4th year BSc nursing students towards nursing as a profession(P et al., 2018). In contrast in the study conducted in Kolhapur, India where there was association between level of perception towards nursing profession and age (p = 9.49)(Momin & Karade, 2017).

CONCLUSION

It concludes that majority of students has positive perception towards nursing profession. The mean score is highest on perception of plays a vital role in patients' fast recovery whereas lowest on perception of don't get as much praise as they deserve. None of the variables are significantly associated with level of perception towards nursing profession. Hence, the findings of this study will be served as a base for future studies on perception towards nursing profession among nursing students.

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Original Article

Physical Abuse and Non-Consented Care during Facility-based Childbirth in Pokhara, Nepal

Rekha Thapaliya[1], Saphalta Shrestha[1]

[1]Lecturer, Tribhuvan University, Institute of Medicine, Pokhara Nursing Campus, Pokhara, Nepal

Corresponding author: Rekha Thapaliya

Email: rekha363845@gmail.com

ABSTRACT

Introduction: Every woman has the right to receive respectful and non-abusive maternity care. The objective of the study was to assess types of physical abuse and non-consented care during facility-based childbirth in Pokhara.

Methods: A descriptive cross sectional study design was used. Non-probability purposive sampling technique was used to select 231 postnatal mothers. Structured interview schedule was used to collect the data. Descriptive statistics were used for data analysis.

Results: The mean age of the mothers was 25.39±4.799 years. More than half (56.7%) had spontaneous vaginal delivery with episiotomy. Most of them (91.3%) were not pushed, slapped, hit or pinched and none of them were physically restrained during labour. Almost all (99.6%) were not restricted for food or fluid unless medically necessitated. Care provider did not allow 38.5% of the mothers to move during labour. Regarding episiotomy, 15.9% of the mothers were given episiotomy without consent and 13.5% of them were not asked for consent before abdominal and vaginal examination. More than half of the mothers (58.8%) were not asked for consent prior to vacuum delivery and 29.1% were not taken consent prior to blood transfusion.

Conclusion: It is concluded that postnatal mothers reported some forms of physical abuse and non-consented care during childbirth. Staff training, hospital protocol and programmes could help to promote respectful maternity care.

Key Words: Childbirth; Facility; Non-consented care; Physical Abuse; Pokhara;

INTRODUCTION

Respectful maternity care is universal human rights that comprise the principles of ethics and respect for women's feelings, dignity, choices and preferences [White Ribbon Alliance (WRA), 2011] .Many women in world experience disrespectful and abusive treatment during childbirth in health facilities. It violates the rights of women to respectful care; threaten their rights to life, health, bodily integrity, and freedom from discrimination (WHO, 2015). Disrespect and abuse of women during the process of childbirth includes physical abuse, non-consented care, non-confidential care, non-dignified care, discrimination based on specific attributes, abandonment of care and detention in health facilities (Bowser and Hill, 2010).

Mistreatment of women during childbirth has become a global problem and has both direct and indirect impacts on the woman and her baby (Kassa et al., 2020; WHO, 2019). WHO continues to put emphasis on every woman has the right to the highest attainable standard of health including right to dignified, respectful maternity care (WHO, 2015).The extent of disrespect and abuse in facility-based childbirth has not been systematically documented or even well defined (Miller& Lalonde, 2015). The disrespect and abusive behavior challenged the utilization of health facilities for delivery and created psychological distance between women and health care providers (Ishola et al., 2017).

A study conducted in Nigeria found that 98% of women experienced at least one kind of abuse and disrespect during their last childbirth. The provision of non-consented care and physical abuse were the most common types (Innocent et al., 2015). A study conducted in Iran showed that all participants had experienced at least one type of abusive care. Cent percent of them reported non-consented care and 17% had experienced physical abuse during facility-based childbirth (Tabar et al., 2023). The high prevalence of disrespectful maternity care indicates an urgent need to improve maternity care. The prevalence of non-respectful maternity care was observed highest in non-consented care, verbal abuse, threats, and physical abuse in India (Ansari & Yeravdekar, 2020).

The study conducted in Nepal reported that 15% of women received various forms of disrespectful care during facility-based childbirth (Pathak &Ghimire, 2020). Similarly, another study conducted in Nepal found that majority of women did not receive

dignified and respectful care throughout the labor (Poudel et al., 2022). Hence, researcher here is interested to assess physical abuse and non-consented care during facility-based childbirth in Pokhara, Nepal.

METHODS

A descriptive cross sectional study design was adopted to find out the prevalence of physical abuse and non-consented care during facility-based childbirth in Pokhara. Pokhara Metropolitan city has 33 wards. Health division of Pokhara Metropolitan city has run their mobile clinic of maternal and child health services especially immunization programs from ward number one to seventeen. Most of the wards belongs to ward number one to seventeen provide service once a month in respective day like ward number one in first day of month. Immunization clinics of ward number eighteen to thirty-three are run by health center of respective wards on 4th, 5th, 6th and 7th of every month. The postnatal mothers who were attending Maternal and Child Health Clinic of respective ward within 45 days of delivery were the study population. Sample size was determined by using the Cochrane's formula, n = (Zα2 pq)/d2. The average number of postnatal mothers visiting the clinic per day was approximately 50. Non-probability purposive sampling technique was used. The total sample of the study was 231 postnatal mothers. Seven postnatal mothers were taken from each ward. The postnatal mothers having vaginal institutional delivery were included in the study. Women having cesarean section delivery and home delivery were excluded.

A structured interview schedule was developed by the researcher through extensive literature review. The first part of the interview schedule included the socio-demographic information and the second part included the questions related to obstetrics characteristics of the respondents. The third part included the questions related to physical abuse and non-consented care. The physical abuse consisted of 7 questions and non-consented care consisted of 12 questions. A total of 19 verification criteria were used to measure physical abuse and non-consented care. The verification criteria were dichotomized responses, "Yes" or "No", to objectively identify reported events of physical abuse and non-consented care. Data was collected after getting ethical approval from Institutional Review Committee of Institute of Medicine (Ref. 420(6-11) e2 /075/76) and permission for data collection was obtained from office of Pokhara Metropolitan. Purpose of the study was explained to the respondents. An informed written consent was obtained from each respondent prior to data collection. The respondents were assured voluntary participation. Confidentiality of the information was maintained by not disclosing the information and using the obtained information for the study purpose only. The data was collected through face-to-face interview technique from 14th May to June 13th, 2019..

The collected data was edited, organized, coded and analyzed using computer package with Statistical Package for Social Science (SPSS) software version 16. Data was analyzed by using descriptive statistics; frequency, percentage, range, mean and standard deviation.

RESULTS

Out of 231 mothers, 88.3%were between the age of 20 and 34 years. The mean age was 25.39 ± 4.799 years. Regarding ethnicity, 45.5% of the mothers were Janajati. Cent percent of them were literate. More than half (68.8%) of the mothers were homemaker and 64.9% of the mother's family income was sufficient for more than one year with surplus. Majority of the mothers (72.3%) were delivered on government hospital. Most of the mothers (86.1%) would recommend the facilities for their family and friends. More than half (50.6%) of the mothers were multiparous. Regarding mode of delivery 12.6% had spontaneous vaginal delivery, 23.4% had spontaneous vaginal delivery with tear, 56.7% had spontaneous vaginal delivery with episiotomy and 7.4% of the mothers had vacuum assisted delivery. Likewise, 43.3% of the mothers had 6-12 hours duration of labour pain. Majority of the mothers (87%) had no complications during childbirth and 90.5% of the newborn had no complications during birth.

Table 1. Physical Abuse Reported by the Respondents during Facility Based Childbirth

n=231

Physical Abuse	Yes No. (%)	No No. (%)
Used of physical force (pushed/ slapped me/hit me/pinched me)	20(8.7)	211(91.3)
Physically restrained or tied during labour	-	231(100)
Care provider did not allow to assume position of choice during birth	132(57.1)	99(42.1)
You did not receive comfort/pain-relief as necessary	71(30.7)	160(69.3)
Restricted for food or fluid in labor unless medically necessitated	1(0.4)	230(99.6)
Episiotomy given or sutured without local anesthesia (n=201)	24(11.9)	177(88.1)

Table 1 shows almost all respondents (91.3%) were not pushed, slapped, hit or pinched during facility-based childbirth. None of the mothers were physically restrained or tied during labour. Almost all the mothers (99.6%) were not restricted for food or fluid unless medically necessitated. Majority of them (88.1%) were given episiotomy and sutured with local anesthesia. Almost all (98.7%) were not separated from their baby without medical indications.

Table 2. Non-consented Care Reported by the Respondents during Facility Based Childbirth

n=231

Non-Consented Care	Yes No. (%)	No No. (%)
Care provider introduce himself/ herself to you and your companion	219(94.8)	12(5.2)
Care provider encourage you to ask questions	208(90)	23(10)
Care provider respond to your questions with promptness, politeness, and truthfulness	219(94.8)	12(5.2)
Care provider explain to you what is being done and what to expect throughout labor and birth	208(90)	23(10)
Care provider give you periodic updates on status and progress of your labor	205(88.7)	26(11.3)
Care provider allow you to move during labor	142(61.5)	89(38.5)
Care provider obtain your consent prior to augmentation /induction of labour	180(77.9)	51(22.1)
Care provider obtain your consent prior to episiotomy (n=201)	169(84.1)	32(15.9)
Care provider obtain your consent or permission prior to abdominal examination/Vaginal examination (n=216)	187(86.5)	29(13.5)
Care provider obtain your consent prior to vacuum assisted delivery (n=17)	7(41.2)	10(58.8)
Care provider obtain your consent prior to blood transfusion (n=31)	22(70.9)	9(29.1)
Care provider obtain your consent prior to insertion of postpartum intra uterine contraceptive device (n=22)	22(100.0)	-

Table 2 shows care provider did not introduce himself or herself with 5.2% of the respondents and companion and 10% were not encouraged to ask questions. Similarly, 5.2% of the providers did not respond with promptness, politeness, and truthfulness, 10% did not explain what is being done and what to expect throughout labor and birth and 11.3% were not provided periodic updates. Care provider did not allow moving 38.5% of the respondents during labour, 22.1% were not taken consent prior to augmentation and induction of labour. Likewise, 15.9% of the respondents were provided episiotomy without consent and 13.5% of respondents were not asked for consent before abdominal and vaginal examination. More than half of the respondents (58.8%) with vacuum assisted delivery were provided non-consented care and 29.1% of the respondents were not taken consent before blood transfusion.

DISCUSSION

Respectful maternity care is a fundamental human right of every childbearing woman (Puthussery et al., 2023). It is considered as an important component of quality of maternal health care services (WHO, 2015). Abusive treatment during facility-based childbirth influences women's choice to deliver their babies in health institutions (Gebeyehu et al., 2023).Proper utilization of maternal health services can play significant role in reduction of maternal and newborn morbidity and mortality (Singh et al., 2019).

In the present study, 8.7% of the mothers were pushed, slapped, hit or pinched during facility-based childbirth whereas another study conducted in Nepal showed only 0.8% (Gurung et al., 2022). Another study conducted by Usso et al. (2022) found that 18.7% of the mothers were pushed, slapped, hit or pinched during facility-based childbirth in eastern Ethiopia. In this study, none of the mothers were physically restrained or tied during labour whereas the previous study conducted in North Ethiopia reported 7.4% (Adinew et al., 2020). The present study revealed that more than half of the mothers (57.1%) were not allowed to assume position of choice during birth. The finding was contradicted with the study conducted in Turkey (Okyay et al., 2022) and eastern Ethiopia (Usso et al., 2022) which was 86.9% and 19.1% respectively. In the current study, 99.6% of the mothers were not restricted for food or fluid unless medically necessitated. The finding was inconsistent with the study done in Turkey which was 54.1% (Okyay et al., 2022). Likewise, 88.1% of the mothers were given episiotomy and sutured with local anesthesia in present study. The finding was supported by the previous study conducted in Tanzania by Sando et al. (2016) that was 95%.

In the present study, 94.8% of health care providers were introduced himself or herself to the mothers and their companion which was more than seven times higher than the report of a study done in Ethiopia (Siraj et al., 2019).But the study done in Eastern Nepal observed cent percent of the care providers did not introduced herself to the mothers during the process of childbirth (Ghimire et al., 2021). In the current study, 90% of health care providers were encouraged mother to ask questions and explained what is being done and what to expect throughout labor and birth. The finding was similar with the study conducted by Usso et al. (2022) which was 87%. Likewise, 94.8% of the health care providers did respond to mother's questions with promptness, politeness, and truthfulness which was higher than 50.7% prevalence reported by the study conducted in Ethiopia (Siraj et al., 2019). In this study, 84.1% of the mothers were taken consent prior to episiotomy. The finding was contrary with the study conducted by Nawab et al. (2019) where majority of the females received episiotomy without consent. Likewise in this study, 77.9% of mothers were taken consent prior to augmentation or induction of labour which was inconsistent with the previous study conducted in Turkey ((Okyay et al., 2022). More than half of the

mothers (58.8%) were not taken permission before vacuum assisted delivery whereas study conducted in Turkey showed 1.7% (Okyay et al., 2022).

CONCLUSION

The study concludes that postnatal mothers were subjected to some forms of physical abuse and non-consented care during childbirth in health facilities. Hospitals should provide training on respectful maternity care to staffs working in maternity ward and develop protocol on respectful maternity care to promote respectful maternity care in hospitals.

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Original Article

Students' Perception towards the Nursing Profession in Kaski, Nepal

Shila Bastola[1] & Sunita Gurung[1]

[1]Department of Nursing Science, Gandaki Medical College, Lekhnath, Kaski, Nepal.

Correspondence Author: Shila Bastola, Email: shilabastola2222@gmail.com

ABSTRACT

Introduction: Nursing students' perceptions towards nursing profession significantly affect their self-concept, self-esteem, retention, and performance. Positive perceptions lead to better performance, as nurses are more motivated and energetic, while negative perceptions can result in a lack of interest, affecting academic performance and patient care. This study aimed to assess nursing students' perceptions towards nursing profession at a nursing college in Kaski district.

Methods: A descriptive cross-sectional study was conducted with 126 Bachelor of science in Nursing students at the School of Health and Allied Sciences, Pokhara University. The complete enumeration method was used to cover the target population. Data were collected using self-administered structured questionnaire and analyzed using SPSS version 16, employing descriptive and inferential statistical methods.

Results: More than half (51.6%) of the respondents had a positive perception of the profession. The mean age of respondents was 21.19 ± 1.18. Over two-thirds (68.3%) stated their own interest as a reason for joining nursing. A significant association was found between respondents' perception levels and their age (p=0.01).

Conclusion: Nearly half of the respondents have a negative perception of the nursing profession. Authorities should emphasize the importance of nursing by clarifying the scope of nursing practice.

Key words: Nursing students; Nursing Profession; Perception;

INTRODUCTION

Nursing stands out as a noble profession within society due to its fundamental commitment to preserving life. Nurses, as healthcare professionals, serve as the bedrock of the healthcare system in every nation. They play an essential role in healthcare delivery, working collaboratively with other allied health professions to ensure the achievement of optimal health outcomes for all members of society (Swarna, 2015). Quality healthcare is a concern for every government, service provider, and consumer of health care services. High-quality healthcare demand and its delivery are greatly influenced by the perception of healthcare professionals towards their own profession (Wangdi& Dorji, 2019). Perception towards the nursing profession can impact their level of knowledge retention, self-concept, self-esteem, and performance. Positive perception can guide them to be safe nurses with an enhanced level of energy to serve humanity and promote the quality of patient care (Browne, Wall, Batt & amp; Bennett, 2021). However, perception of nursing may vary depending on age, educational level, social and professional experience (Wondwossen, 2011).

Previous study conducted in Western Maharashtra, India, revealed that most of the respondents had positive perceptions towards their profession. More than half participants had a good level of perception, some had an average level of perception and hardly a few had a poor level of perception towards the profession (Momin, 2016). Similarly, a study conducted at Manipal College of Medical Sciences, Pokhara revealed that the majority of the students had a positive perception towards the statement on the scope and importance of the nursing profession (Devi, 2013).

Understanding students' perceptions towards nursing profession is crucial for retaining a qualified workforce. Positive perception can guide them to be safe nurses with an enhanced level of energy to serve humanity and promote the quality of patient care. Various studies have been conducted to assess the perception of nursingstudents towards the profession across different countries. However, there are only a few studies in the context of Nepal. Therefore, this study aims to assess nursing students' perception towards their profession.

METHODS

A descriptive cross-sectional research design was conducted in the School of Health and Allied Sciences, Pokhara University among BSc Nursing Student. The total number of students studying BSc nursing in this college is 134. There were 39, 40, 40, and 15 students from the fourth year, third year, second year, and first year respectively.

Complete enumeration method was used to cover 134 target population. BSc nursing students studying at Pokhara University, who were present in the class during data collection time and willing to participate, were included in this study. Out of 134 students, 8 were absent that's why 126 respondents were only enrolled in this study.

A self-administered structured questionnaire in English was developed and utilized for data collection. Perception was measured using a 5-point Likert scale, with a total of 30 statements (15 positive and 15 negative). The level of perception was categorized as positive if the score was equal to or above the mean, and negative if below the mean. Pretesting of the instrument was done in 14 B.Sc. Nursing students in similar setting i.e. Gandaki Medical College, College of Nursing Sciences, Rithepani-27, Kaski to check the clarity and consistency of the tool. Data collection was done from 2078/09/29 to 2078/10/13.

Data were coded, entered in IBM SPSS version 16, and analyzed using descriptive statistics (frequency, mean, standard deviation) and inferential statistics (chi-square test), with statistical significance set at $p < 0.05$.

RESULTS

The mean age of the respondents was 21.19 years (±SD 1.185). The majority (73%) were aged 21-23 years. Over half (57.1%) of the respondents were from Upper Caste groups. A large majority (79.4%) lived in urban areas.. Less than a third (21.7%) were involved in business, while fewer than half (41.7%) of the mothers were homemakers. More than half (55.5%) reported a monthly family income in the upper-medium range.

Less than two-thirds (70.6%) of respondents scored ≥75% in their 10+2 exams. Approximately one-third (31%) were second-year nursing students. More than two-thirds (68.3%) mentioned their personal interest as the reason for choosing nursing.

Table 1. Respondents' Response on Positive Perception towards Nursing Profession

n=126

Statements	SA No. (%)	A No. (%)	N No. (%)	D No. (%)	SD No. (%)
Nursing is a noble profession	75(59.5)	47(37.3)	4(3.2)	0(0)	0(0)
Nursing is an opportunity to serve humanity	84(66.7)	39(30.9)	3(2.4)	0(0)	0(0)
Opportunity for personal growth	63(50)	44(34.9)	15(11.9)	4(3.2)	0(0)
A way to have bright prospects in abroad	47(37.3)	54(42.8)	18(14.3)	4(3.2)	3(2.4)
A nurse is a professional liaison between the physician and the patient	18(14.3)	66(52.4)	33(26.2)	5(4)	4(3.2)
Nursing is a way to enjoy economic security	3(2.4)	21(16.7)	47(37.3)	43(34.1)	12(9.5)
Caring profession in which ethical standards of care is maintained	35(27.8)	61(48.4)	19(15.1)	5(4)	6(4.8)
An opportunity to get due recognition in society	20(15.9)	55(43.7)	43(34.1)	6(4.8)	2(1.6)
A means to earn blessing	51(40.5)	54(42.9)	16(12.7)	3(2.4)	2(1.6)
Provide self-actualization	42(33.3)	67(53.2)	14(11.1)	1(0.8)	2(1.6)
Nursing profession is equal to all other health profession	40(31.7)	36(28.6)	14(11.1)	22(17.5)	14(11.1)
Requires compassion, patience & strength	80(63.5)	39(31)	3(2.4)	2(1.6)	2(1.6)
Good pay & Good job security offers positive view about the choice of Nursing	47(37.3)	46(36.5)	18(14.3)	7(5.6)	8(6.3)
Nurses feel good about what they do	37(29.4)	49(38.9)	28(22.2)	11(8.7)	1(0.8)
Has a good career ladder/ advancement	34(27)	61(48.4)	28(22.2)	1(0.8)	2(1.6)

*SA: Strongly Agree; A: Agree; N: Neutral; D: Disagree; SD: Strongly Disagree; *: Negative Statements*

Table 1 illustrates that more than half of the respondents (59.5%) strongly agreed that nursing is a noble profession. Two third of the respondents (66.7%) strongly agreed that nursing is an opportunity to serve humanity. Half of the respondents (50%) strongly agreed on statement opportunity for personal growth. More than half (52.4%) agreed on statement a nurse is a professional liaison between the physician and the patient. Nearly half of the respondents (48.4%) agreed as a caring profession in which ethical standards of care is maintained. Less than half of the respondents (43.7%) agreed as an opportunity to get due recognition in society. Less than half of the respondents (42.9%) agreed on statement a means to earn blessing. More than half of respondents (53.2%) agreed on statement provide self-actualization. Less than two- third of respondents (63.5%) strongly agreed on statement requires compassion, patience & strength.

Table 2. Respondents' Response on Negative Perception towards Nursing Profession

n=126

Statements	SA No. (%)	A No. (%)	N No. (%)	D No. (%)	SD No. (%)
Nursing profession is extremely hard profession that does not receive enough appreciation	44(34.9)	43(34.1)	19(15.1)	18(14.3)	2(1.6)
Nursing is a female job	1(0.8)	7(5.6)	13(10.3)	59(46.8)	46(36.5)
Nursing waste a lot of time being busy doing nothing	8(6.3)	7(5.6)	21(16.7)	55(43.7)	35(27.8)
Nurses' work is just giving injection & care to patient	2(1.6)	1(0.8)	5(4)	59(46.8)	59(46.8)
Nurses only do what doctor tells them to do without questioning them	6(4.8)	14(11.1)	20(15.9)	45(35.7)	41(32.5)
Nurses have limited voices with administrators	20(15.9)	41(32.5)	30(23.8)	29(23)	6(4.8)
Nursing Profession is for low academic achiever and dull students	1(0.8)	3(2.4)	3(2.4)	35(27.8)	84(66.7)
Anyone could be nurse easily	3(2.4)	8(6.3)	16(12.7)	64(50.8)	35(27.8)
Nursing is just an opportunity to get marriage offers	0(0)	5(4)	11(8.7)	32(25.4)	78(61.9)
Nursing profession is similar to Housemaid	1(0.8)	0(0)	6(4.8)	28(22.2)	91(72.2)
Nursing is not a prestigious job	3(2.4)	9(7.1)	13(10.3)	43(34.1)	58(46)
The view of people about nursing does not affect reality about nursing	19(15.1)	35(27.8)	37(29.4)	28(22.2)	7(5.6)
Nursing is an occupation and not a profession	2(1.6)	3(2.4)	19(15.1)	52(41.3)	50(39.7)
One of the professions I will not encourage my children to join it	8(6.3)	16(12.7)	26(20.6)	44(34.9)	32(25.4)
Not an important profession in patient care	5(4)	2(1.6)	5(4)	39(31)	75(59.5)

*SA: Strongly Agree; A: Agree; N: Neutral; D: Disagree; SD: Strongly Disagree; *: Negative Statements*

Table 2 reveals that more than one-third of respondents (34.9%) strongly agreed that nursing profession is an extremely hard profession that does not receive enough appreciation.

Less than half of the respondents (46.7%) disagreed that nursing is a female job. Less than half of the respondents (43.7%) disagreed that nurses' waste a lot of time being busy doing nothing. 46.8% of the respondents disagreed that nurses' work is just giving injection & care to patient. Two- third of the respondents (66.7%) strongly disagreed that nursing profession is for low academic achiever and dull students. Half of the respondents (50.8%) disagreed on statement anyone could be nurse easily. Less than two- third of respondents (61.9%) strongly disagreed that nursing is just an opportunity to get marriage offers. Majority of respondents (72.2%) strongly disagreed on statement nursing profession is similar to Housemaid. Less than half of the respondents (46%) strongly disagreed that nursing is not a prestigious job. More than half of the respondents (59.5%) strongly disagreed on statement not an important profession in patient care.

Table 3. Perception Level of the Respondents

n=126

Level of Perception	Number	Percent
Positive Perception (≥mean score)	65	51.6
Negative Perception (<mean score)	61	48.4

Table no. 3 shows that more than half (51.6%) of the respondents had a positive perception toward nursing profession.

Table 4. Association between Level of Perception and Selected Variable

n=126

Variables	Level of perception		χ^2 value	*P-value*
	Positive perception No. (%)	Negative perception No. (%)		
Age (in completed years)				
< 21	23(69.7)	10(30.3)	5.87	**0.01***
≥ 21	42(45.2)	51(54.8)		
Religion				
Hinduism	59(52.7)	53(47.3)	0.48	0.48
Buddhism	6(42.9)	8(57.1)		
Ethnicity				
Upper caste group	32(44.4)	40(55.6)	3.43	0.06
Others	33(61.7)	21(38.9)		
Permanent residence				
Urban	52(52)	48(48)	0.03	0.85
Rural	13(50)	13(50)		
Father's occupation				
Employed	62(51.7)	58(48.3)	0.26	0.60
Unemployed	3(50)	3(50)		
Mother's occupation				
Employed	38(52.8)	34(47.2)	0.09	0.75
Unemployed	27(50)	27(50)		
Monthly family income				
< 36,000	24(47.1)	27(52.9)	0.70	0.46
36,000 - >1,11,000	41(54.7)	34(45.3)		
Obtained percentage in 10+2				
< 75%	18(48.6)	19(51.4)	0.18	0.67
≥ 75%	47(52.8)	42(47.2)		
Year of the course				
1st Year & 2nd Year	30(55.6)	24(44.4)	0.59	0.44
3rd Year & 4th Year	35(48.6)	22(4)		
Reason to join nursing				
Self-Wish	48(55.8)	38(44.2)	1.93	0.16
Others	17(42.5)	23(57.5)		

Significant level of p-value less than 0.05(=significant)*

Table 4 illustrates that there is a significant association between respondents' perception levels and their age (p=0.01). However, no significant associations were found between perception levels and variables such as religion, ethnicity, permanent residence, parents' occupations, family income, academic performance, and reasons for joining nursing.

DISCUSSION

This study shows that more than half of the respondents had a positive perception towards the profession. Similar study conducted by Koirala et al., (2021) at Chitwan Medical College showed a significant positive perception towards the nursing profession. Present study shows that more than half of the respondents (51.6%) had a positive perception, and nearly half of the respondents (48.4%) had a negative perception towards the profession. This finding is similar to the study conducted by Kathreena et al., (2015) in a selected nursing college at Mangalore, which showed (43.33%) had a positive perception and (52.67%) had a negative perception towards the nursing profession. This finding contrasts with the study conducted by Kumar et al., (2021) in selected public and private institutions in Punjab, which showed (75%), had a positive perception. The variation in the level of perception may be due to the research setting and sample size.

The current study reveals more than half of the respondents (59.5%) strongly agreed that nursing is a noble profession. This finding is similar to the study done by Devi et al., (2019) in SikkimManipal University, which shows (52%) of the respondents strongly agreed that nursing is a noble profession.

In the present study, half of the respondents (50%) strongly agreed on the statement opportunity for personal growth. Nearly half (46.7%) disagreed that nursing is a female job. Nearly half of the respondents (48.4%) agreed as a caring profession in which ethical standards of care is maintained. Less than one-third of respondents (31.7%) strongly agreed that the nursing profession is equal to all other health professions. Nearly half of the respondents (48.4%) agreed on the statement has a good career ladder/ advancement. These findings was similar to the study conducted by Wangdi, U., &Dorji, N. (2019) in Bhutan which showed that (49.5%) strongly agreed on the statement opportunity for personal growth. 41% disagreed that nursing is female job. 43.5% agreed as a caring profession in which ethical standards of care is maintained. 42.5% strongly agreed that the nursing profession is equal to all other health profession.

Current study shows that more than half of respondents (53.2%) agreed on the statement provide self-actualization. More than half of the respondents (59.5%) strongly disagreed on statement not an important profession in patient care. This finding was in consistent to the study conducted in Pakistan by Khalil et al., (2017) which showed that 55.8% agreed withthe statement provide self-actualization.59.2% strongly disagreed on statement not an important profession in patient care.

Findings of the study show that there was a statistically significant association of level of perception with age of respondents (p= 0.015). This finding is consistent to the study conducted by Kathreena et al., (2015) in a selected nursing college at Mangaluru which showed that there was association of age with level of perception towards the profession(p=0.024). The current study shows that there is no significant association of level of perception with religion, ethnicity, permanent residence, fathers' employment, mothers' employment, family income, obtained percentage in +2, year of course and reason to join nursing (p > 0.05). The result is supported by the study conducted by Devi et al., (2019) in SikkimManipal university which showed that there is no association of level of perception with religion, ethnicity, permanent residence, fathers' employment, mothers' employment, family income, obtained percentage in +2, year of course and reason to join nursing (p >0.001).

CONCLUSION

The study concludes that more than half of the nursing students have a positive perception of the profession. There is a significant association between level of perception and the students' age, but no significant associations are found with religion, ethnicity, permanent residence, parents' occupations, family income, year of study, academic performance, or reasons for choosing nursing. Nearly half of the respondents have a negative perception.

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Original Article

Psychological Well-Being among Pregnant Teenagers attending Scheer Memorial Adventist Hospital, Banepa

Neha Shrestha[1], Rachita Neupaney[1], Kushum Kunwar[1], Shikha Poudel[2], Rashmila Poudel[2]
[1] Lecturer, Scheer Memorial Adventist Hospital Medical Institute, Kathmandu University
[2] B.Sc. Nursing 4th-year student, Sheer Memorial Adventist Hospital Medical Institute, Kathmandu University
Corresponding Author: Ms. Neha Shrestha, email: nehashrestha2105@gmail.com

ABSTRACT

Introduction: The incidence of teenage pregnancy has been on the rise recently. Given that adolescence is already a time of transition and identity exploration, the added responsibility of motherhood can be overwhelming for teens, potentially impacting their psychological well-being. The objective of the study was to find out the psychological well-being of teen age pregnancy and to find out the association between psychological well-being and selected socio-demographic variables.

Methods: A hospital-based mixed-method study was conducted among 88 pregnant teenagers visiting theantenatal clinic of Scheer Memorial Adventist Hospital. Data collection was carried out by the researcher using pretested interview guides to collect information. The Psychological General Well-Being Index (PGWBI) was utilized to assess the psychological well-being of the respondents. Data analysis was conducted using SPSS version 11.5. Non-parametric tests, including Pearson's Chi-square test and Fisher's exact test, were employed for quantitative data analysis, while thematic analysis was used for qualitative data interpretation.

Results: The study found that 74% of respondents demonstrated psychological well-being, with 18% showing moderate distress and 8% experiencing severe distress. No statistically significant association was observed between psychological well-being and socio-demographic variables. However, a significant association was identified between psychological well-being and satisfaction with husbands' support (chi-square = 7.301, p = 0.007). Teenage pregnancy affected the psychological state of teens in various ways, such as the compulsion to stop studying and pressure to conform to societal expectations. Additionally, there is pressure from family and society to conceive soon after marriage. Physical discomfort during pregnancy significantly impacts the overall pregnancy experience for many teens. This highlights the complexity and emotional impact of dietary restrictions during pregnancy. Despite these challenges, some teens felt supported and happy, appreciating the attention to their well-being during this special time.

Conclusions: The study concludes that most pregnant teens have psychological well-being, but some experience distress. Healthcare providers should prioritize screening and tailored interventions. Education efforts should promote delaying marriage and pregnancy, with comprehensive sexual education. Further research is needed to understand and address factors affecting psychological well-being in this demographic

Keywords: Distress; Pregnant teenagers; and Psychological well-being;

INTRODUCTION

Teenage pregnancy is a global phenomenon that directly causes serious physical health and mental health even leading to socio-economic consequences. It tends to be higher in developing countries [World Health Organization (WHO), 2020]. In the year 2019, it was estimated that 21 million girls aged 15-19 years in low and middle-income countries were pregnant each year (Singh, Darroch, Ashford & Vlassoff , 2019).

Annually, 18 million babies are born to mothers 18 years or less. Two-thirds of these births occur in South Asia and Sub-Saharan Africa (Gurung et al., 2020). In Nepal, adolescents aged group 10 – 19 years comprise 6.38 million of the total population of 28.5 million. Psychological well-being encompasses subjective well-being, where individuals assess their lives based on their perceptions. It reflects a sense of overall satisfaction and effectiveness in functioning, indicating that one's life is going well. When considering teenage pregnancy, psychological well-being is crucial as it can impact how adolescents perceive and navigate their circumstances, affecting their overall satisfaction and ability to function effectively (Hymavathee et al., 2016) .

In Nepal, adolescents, constituting 22% of the population, face significant challenges, with high rates of early marriage and adolescent pregnancies. According to the Family Health Survey, 50% of adolescent girls and 20.6% of boys aged 15-19 are married, and 24% of adolescents are already mothers or pregnant. Alarmingly, 27.5% of reproductive-age suicides occur in adolescents. These statistics highlight the urgent need for mental health facilities tailored to address adolescent needs (NDHS, 2022).

Various problems encountered during pregnancy not only affect the physical and mental health of adolescents but also their long-term emotional, economic, and social well-being. Despite increasing awareness and education on teenage pregnancy, the psychological aspect has not been addressed properly. This study, "Psychological Well-Being among Pregnant Teenagers attending SMAH, Banepa" is one of the novice research to be done in this population in our setting.

METHODS

A mixed method "QUANT_qual" design was adopted in this study. Setting was Antenatal clinic of SMAH, Banepa. An average ANC clinic typically sees a flow of 40 to 50 pregnant mothers per day. Study Duration from July 30, 2023, to October 30, 2023. Study population was Pregnant mothers aged ≤19 years attending the ANC clinic of SMAH. Total respondent was 88. For the qualitative data there was 09 respondents. Sampling technique used non-probability purposive sampling method.The data collection method involved interviews conducted by the researchers using a semi-structured interview schedule which comprised sections on self and spouse information, as well as the Psychological General Well-being Index. Qualitative data collection, applied to ten percent of the sample, using in-depth interview guide in separate-room within the OPD unit, ensuring respondent privacy and comfort. All interviews were audio-recorded with respondent permission and later transcribed.

Instrument: Questionnaire

Part I Socio-demographic profile: A semi-structured questionnaire consisting of information about self and spouse.

Part II the Psychological General Well-being Index: The PGWBI consists of 22 self-administered items, rated on a 6-point scale, which assesses the psychological and general well-being of respondents in six domains: anxiety, depression, positive well-being, self-control, general health, and vitality. Each item has six possible scores (from 0 to 5), referring to the last 4 weeks of the subject's lifetime. The sum of the items creates the total score with a possible range of 0 to 110, with some items being reverse-scored. Higher scores represent higher levels of psychological well-being. Scores less than 60 indicate severe distress, 60 - 72 represent moderate distress, and scores above 72 represent the psychological well-being of the client.

Part III: In-depth interview schedule for qualitative data:

An in-depth interview was conducted with9 participants (10% of the sample sizeof the quantitative study). The questionnaire consists of four semi-structured questions finalized after consultation with peer review.

1. Can you please share your experience on the changes in your life due to this pregnancy?
2. How has becoming pregnant at an early age affected your life?
3. How do you think can this phase be made easier for you?
4. Can you share your views regarding teenage pregnancy?

During data analysis divided in two parts,

Quantitative analysis: After completion of data collection, a questionnaire was checked for completeness, organized, and coded. The data hence collected was entered in Microsoft Excel and statistical analysis was done through SPSS 16 version. Descriptive statistics was used in frequency, percentage, mean, and standard deviation to describe the various socio-demographic variables. Inferential statistics such as Chi-square were used to illustrate the association between the outcome variable with various independent variables.

Qualitative analysis: All interviews were audio-recorded, transcribed verbatim, and subjected to thematic analysis. The major themes identified encompassed:

- Emphasizing the importance of completing studies over early pregnancy.
- Recognizing the adverse impacts of teenage pregnancy on both maternal and child well-being.
- Increased occurrence of physical health problems.
- Recognizing societal pressure to conceive after marriage, despite the risks of teenage pregnancy.
- Noting constraints on dietary choices and daily activities.
- Increase in the level of care compared to pre-pregnancy.
- Documenting shifts in the household environment from negative to positive dynamics.

Ethical considerations

Ethical clearance (IRC/145/2023) was obtained from the Institutional Review Committee of Scheer Memorial Adventist Hospital on June 25th, 2023. Permission was obtained from the nursing director and the in-charge of the ANC for data collection. Every precaution was taken to protect the rights of participants. Informed verbal and written consent was obtained from each participant and her husband or accompanying guardian before starting the study, with proper documentation. Confidentiality was maintained by using code numbers in the questionnaire, and the collected information was solely utilized for research purposes Participants experiencing any form of distress were provided with psycho-education and referred to a psychiatrist.

RESULTS

Table 1. Socio-demographic Information of Respondents

n=88

Variables	Number	Percent
Age at marriage (in completed years)*		
14	1	1.1
15	5	5.7
16	17	19.3
17	30	34.1
18	26	29.5
19	9	10.2
Mean ±SD = 17.16 ± 1.103		
Educational status		
Literate	84	95.5
Illiterate	4	4.5
Level of education (n=84)		
Basic education	36	40.9
Secondary education	42	47.8
Higher Education	6	6.8
Occupation		
Agriculture	5	5.7
Business	2	2.2
Homemaker	73	83.0
Service	8	9.1
Socio-economic status		
Upper Middle II	12	13.6
Lower Middle III	39	44.3
Upper Lower IV	37	42.0
Family type		
Joint	59	67
Nuclear	29	33
Existing health problem		
Yes	2	2.3
No	86	97.7
If Yes, which condition		
Gastritis	2	100
Psychiatric problem		
Absence	88	**100**

Table 1 displays about half (48.9%) were 19 years old, mean age 18.28 years (SD = ±0.802). About half (47.8%) completed secondary education, with 44.3% from Lower Middle III class and 67% in joint families. A small minority (2.3%) reported existing health problem, notably gastritis.

Table 2. Information about Spouse of Respondents

n=88

Variables	Number	Percent
Spouse's educational status		
Literate	79	89.8
Illiterate	9	10.2
Spouse's level of education (n=79)		
Can read and write	1	1.1
Basic education	32	36.4
Secondary education	35	39.8
Higher Education	11	12.5
Satisfaction with spouse's support		
Highly satisfied	48	54.5
Moderately satisfied	40	45.5

Table 2 illustrates that the majority reported having literate husbands (89.8%). More than half of the respondents expressed high satisfaction with spousal support (54.5%).

Table 3. Respondents' Obstetric Information

n=88

Variables	Number	Percent
Gravida		
Primigravida	78	88.6
Multigravida	8	9.1
Multigravida with One Alive (G2A1)	2	2.3
Pregnancy trimester		
First Trimester	5	5.7
Second Trimester	43	48.9
Third Trimester	40	45.5
Pregnancy type		
Planned	63	71.6
Unplanned	25	28.4

Table 3 shows that most (88.6%) respondents, were experiencing their first pregnancy and 71.6% reported having planned their pregnancies.

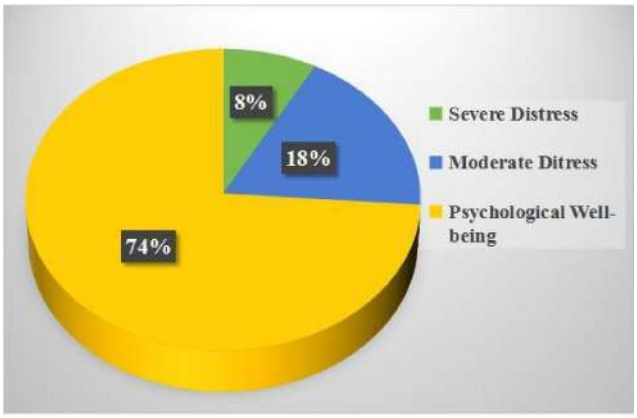

Figure 1. Level of Psychological Well-being of Respondents

Quantitative Analysis

Figure 1 depicts that the majority (74%) of respondents demonstrated psychological well-being whereas 18 % of them, exhibited moderate distress. conversely, a smaller percentage (8%) experienced severe distress.

Qualitative Analysis

Three participants directly linked their low mood to their early pregnancy, expressing frustration at being unable to continue their academic pursuits.

"I often think about how things would've been better if I had completed my studies before getting pregnant. It's been tough trying to continue my education while being pregnant."

This sentiment reflects the regret and challenges faced by pregnant teens who recognize the importance of completing their studies before pregnancy, highlighting the difficulties they encounter in balancing education with the demands of pregnancy.Teen 80 expresses,

"Being pregnant at this age is tough. I worry about how it will affect me and My baby. People keep asking when I will be pregnant. There is pressure from family and society to be pregnant soon after marriage. Though I knew the consequences, I had to be pregnant due to the pressure."

This statement highlights the significant challenges and pressures faced by pregnant teenagers. They express concern about the impact of pregnancy on both themselves and their baby. Despite being aware of the consequences of early pregnancy, they felt compelled to proceed due to these societal pressures, illustrating the complex and difficult circumstances surrounding teenage pregnancy. Teen 15 reported,

"I've been having a lot of back pain lately. Everyone reassures saying it's because of the pregnancy."

Additionally, it was noted that almost 90% of pregnant teens expressed an increase in physical problems compared to before. Teen 15 further expressed,

"Everyone says in pregnancy these things happen, but due to these physical problems, I am not able to enjoy the pregnancy fully."

This indicates the significant impact of physical discomfort on the overall pregnancy experience for many teens.

The majority of teens expressed

"I've experienced significant dietary restrictions during my pregnancy. People constantly remind me of what pregnant mothers shouldn't eat. Sometimes, it feels like it's care, but other times, it feels like I couldn't eat the food I love. Maybe it's for the health of my baby, but I wonder, are there so many restrictions on food consumption, sister?"

The statement reflects the mixed feelings of the individual regarding the dietary restrictions imposed during pregnancy. The individual questions the necessity of such strict limitations and seeks clarification from a healthcare professional, indicating a desire to understand the rationale behind these restrictions. Overall, the statement highlights the complexity and emotional impact of dietary restrictions during pregnancy.

One of the respondents expressed a sense of contentment and gratitude, stating,

"The best part of pregnancy is that everyone has started taking more care than before. My family and friends are concerned about my good health, and I am happy and enjoying this phase of pregnancy."

The statement reflects a positive experience of pregnancy, highlighting the increased care and concern shown by family and friends. The individual feels supported and happy, appreciating the attention to their well-being during this special time. This interpretation suggests that the individual finds comfort and joy in the care and support they receive from their loved ones, contributing to a positive overall experience of pregnancy.

Teen 40 expressed,

"My family environment was very disputative before, but after I became pregnant, my home environment has changed for the better. That's why I feel this pregnancy is very lucky."

This statement suggests that Teen 40 perceives a significant improvement in their family dynamics since becoming pregnant.

Table 4. Association between Psychological Well-Being with Selected Socio-demographic Variables

n=78

Variables	Distress No. (%)	Well-being No. (%)	χ^2 value	*P-value*
Age				
< 18	6 (35.3)	11 (64.7)	1.46	0.366 (f)
≥18	17 (23.9)	54 (76.1)		
Level of Education				
Secondary	12 (28.6)	30 (71.4)	0.246	0.62
Others	10 (23.8)	32 (76.2)		
Occupation				
Homemaker	20 (27.4)	53 (72.6)	3.88	0.75 (f)
Others	3 (20)	12 (80)		
Family Type				
Joint	13 (22)	46 (78)	1.561	0.212
Others	10 (34.5)	19 (65.5)		
Satisfaction in husbands 'support				
Highly satisfied	7 (14.6)	41 (85.4)	7.301	0.007*
Moderately satisfied	16 (40)	24 (60)		
Gravida				
G1	19 (24.4)	59 (75.6)	2.45	0.281(f)
G2	4 (40)	6 (60)		
Pregnancy Type				
Planned	13 (20.6)	50 (79.4)	3.477	0.62
Unplanned	10 (40)	15 (60)		

** One way ANOVA, Significant at p-value<0.05; Others: Muslim, Madhesi*

Table- 4 shows that there was a significant association between the level of psychological well-being and Satisfaction with husbands' support (p= 0.007).

Mixed Method Analysis

Age at marriage

Quantitative analysis

Table 3 shows that though there is no significant association of age at marriage with psychological well-being, the participants who married before they turned 18 years were found to be more distressed than those who married later implying that age at marriage can be a predictor of the psychological well-being of a female.

Qualitative analysis:

Teen 3's statement reflects the theme of "Age and Pregnancy Planning", echoing the sentiment that marriage and pregnancy should be postponed until the age of 20, emphasizing the importance of aligning life milestones with age milestones. They mentioned,

"One should marry only after turning 20 years, even if they marry, they should delay their pregnancy and plan the child after the female reaches 20 years of age."

This reflects an awareness of age and pregnancy timing.

Teen 88's comment resonates with the theme of "Physical and Emotional Readiness," underscoring the idea that planning pregnancy after achieving physical and emotional readiness is crucial for the well-being of both mother and baby. They shared,

"I now realize a girl should plan pregnancy only after she is physically and emotionally strong so that mother and baby both turn out to be well."

This suggests an understanding of the developmental aspects linked to age and its impact on pregnancy outcomes.

Overall, these remarks illustrate the respondents' awareness of the relationship between age and pregnancy planning and emphasize the significance of waiting until a certain age, typically around 20 years old, to embark on the journey of parenthood with psychological well-being.

Satisfaction in husbands' support

Quantitative analysis: This table demonstrates a significant association between the psychological well-being of pregnant teens and their satisfaction with their husbands' support. A majority of participants (85.4%) who reported higher satisfaction with husband support were found to have a positive psychological well-being.

Qualitative analysis: Qualitative analysis of the relationship between psychological well-being in pregnant teens and satisfaction with husband support identifies several simple themes.Firstly, varying perceptions of support from husbands directly influence participants' psychological well-being, with genuine empathy and understanding being key. Secondly, effective communication and emotional validation from husbands play a pivotal role in promoting positive mental health outcomes. Thirdly, participant's exhibit diverse coping strategies in response to the level of support received, reflecting the importance of adaptive mechanisms during pregnancy. Lastly, cultural norms and societal expectations also shape perceptions of husband support and its impact on psychological well-being. These simple themes highlight the subjective nature of support and its multifaceted influence on the psychological well-being of pregnant teens.

Findings of Qualitative Analysis:

In this study, thematic analysis was used to examine the narratives of pregnant teens regarding their psychological well-being, experiences of pregnancy, and perceptions of husband support. The findings revealed several key themes: Challenges of Teenage Pregnancy: Participants expressed frustration and regret about the challenges they faced due to early pregnancy, such as the impact on their education and societal pressures to conceive. Physical Discomfort: Many participants reported experiencing physical discomfort during pregnancy, such as back pain, which affected their overall pregnancy experience.

Dietary Restrictions: Pregnant teens discussed the dietary restrictions imposed during pregnancy, expressing mixed feelings about the necessity and impact of these limitations on their well-being.

Social Support: Some participants described feeling supported and grateful for the increased care and attention they received from family and friends during pregnancy, contributing to a positive overall experience.

Family Dynamics: Certain participants noted positive changes in family dynamics since becoming pregnant, highlighting the perceived benefits of pregnancy on family relationships.

Age and Pregnancy Planning: Respondents emphasized the importance of delaying marriage and pregnancy until reaching a certain age, typically around 20 years old, to ensure physical and emotional readiness for parenthood.

Satisfaction with Husband Support: The analysis also revealed varying perceptions of support from husbands and its impact on participants' psychological well-being. Effective communication, empathy, and emotional validation were identified as important factors contributing to positive mental health outcomes.

Overall, the thematic analysis provided insights into the complex experiences of pregnant teens, highlighting the interplay between psychological well-being, pregnancy experiences, and social support, particularly from spouses. The findings underscore the importance of comprehensive support systems and interventions tailored to the unique needs of this vulnerable demographic

DISCUSSION

The increasing incidence of teenage pregnancy both nationally and internationally presents significant challenges, particularly considering the already complex transitional phase of adolescence. The findings of this study indicate that while a substantial proportion of respondents demonstrated Psychological Well-being (74%), a smaller percentage experienced Moderate (18%) or Severe Distress (8%). This contrasts with a study conducted in South Africa, where the majority of pregnant teenagers reported psychological distress (Smith et al., 2018).

The mean age of respondents in this study was 18.36 ± 0.714 years, indicating an early onset of sexual activity among participants, with approximately half being less than or equal to 18 years old. Additionally, the mean age at marriage was 17.32 years, reflecting societal norms and cultural practices surrounding early marriage and fertility. Qualitative findings highlighted the mental stress associated with early marriage, despite quantitative analysis showing no significant difference in psychological well-being based on age at marriage.

The mean age of spouses was 24.61 years, with a significant age difference between adolescent females and their older male spouses. The majority of respondents conceived immediately after marriage, often due to societal pressures despite awareness of the health risks to both mother and child. Respondents emphasized the importance of delaying marriage and pregnancy until reaching a certain age to ensure readiness for parenthood.

This study revealed that majority (89.8%) of the respondents are homemaker and only 6.8% were students. Similar finding has been reported in a study conducted in Nepal which showed that 28.4% of the respondents had dropped their schools due to their pregnancy (Maharjan M. et al., 2019). Despite the fact that most respondents and their spouses had

attained at least a secondary level of education, a significant number of respondents discontinued their education or transitioned into homemaking roles as a result of pregnancy. The qualitative analysis brought to light the multifaceted challenges of teenage pregnancy, as teens expressed feelings of frustration and regret regarding the obstacles they encountered due to early pregnancy. These challenges included the detrimental impact on their education and the pervasive societal pressures to conceive at a young age.

All respondents in the study were married, reflecting cultural norms, but this contrasts with a study in Navajo where only 4% of pregnant adolescents were married (Jones et al., 2014). This could be because Nepal is guided by customs and traditions and pregnancy before marriage is taboo in Nepal. Another reason for this could be that unmarried adolescents report to other centers like Mary Stopes Nepal and other women's health clinic to maintain confidentiality and hence those samples have not been reflected in this study.

Although the majority of respondents did not report any preexisting health issues (94.3%) or psychiatric illnesses (100%), the qualitative analysis revealed a contradictory finding. Many participants shared experiences of physical discomfort during pregnancy, notably back pain, which significantly impacted their overall pregnancy journey. This incongruity underscores the complexity of teenage pregnancy experiences and highlights the importance of considering qualitative insights alongside quantitative data to gain a comprehensive understanding of the subject matter.

Quantitative analysis found association between pregnant teens' psychological well-being and satisfaction with their husbands' support, with 85.4% of those reporting higher satisfaction showing positive mental health. Qualitative analysis revealed diverse perceptions of this support, emphasizing effective communication, empathy, and emotional validation as key factors for positive outcomes. This underscores the importance of nuanced spousal support in promoting the psychological well-being of expectant mothers.

Overall, the thematic analysis provided insights into the complex experiences of pregnant teens, emphasizing the importance of comprehensive support systems tailored to their unique needs.

Despite these significant findings, certain limitations should be acknowledged. The reliance on self-reported measures may introduce response bias, and the sample's representativeness could be limited, affecting the generalizability of findings.

The implications of this study are noteworthy. The identification of spousal support as a key determinant of maternal psychological well-being underscores the importance of integrating support interventions into prenatal care programs.

CONCLUSION

The study underscores the prevalence of psychological well-being among the majority of pregnant teenagers. Notably, socio-demographic variables show no significant association, but satisfaction with husbands' support is linked to well-being. Recommendations include prioritizing distress screening during prenatal care and tailored interventions. Educational efforts should promote delaying marriage and pregnancy through comprehensive sexual education programs. Healthcare policies need updating to prevent teenage pregnancies and support affected individuals. Societal empowerment efforts for teenage girls should focus on education, economic opportunities, and reproductive healthcare access. Future research should explore factors influencing well-being during teenage pregnancy for targeted interventions.

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Original Article

Anxiety among the Patients Undergoing Surgery in a Selected Hospital of Kavre

Goma Adhikari[1] & Neha Shrestha[2]

[1]RN, Kist Teaching Hospital

[2]Lecturer, Scheer Memorial Adventist Hospital Medical Institute, Kathmandu University

Corresponding Author:

Goma Adhikari

Email: adhikarigomu@gmail.com

ABSTRACT

Introduction: Anxiety is the feeling of unease, fear, worry, tension, and apprehension. It is a response to internal and external stimuli that can have behavioral, emotional, cognitive, and physical symptoms. The objective of the study was to assess the anxiety among the patients undergoing surgery in Scheer Memorial Adventist Hospital, Kavre.

Methods: A cross-sectional study design was employed from September 2022 to October 2022. A total of 141 patients (18 years and above undergoing surgery) were enrolled using a non-probability purposive sampling technique. Face-to-face interview was conducted using structured questionnaires and the Anxiety Specific to Surgery Questionnaire scale.

Results: The study showed that 15.6% of respondents had no anxiety, more than half (56.0%) of respondents had low-level anxiety, 25.5% had moderate level anxiety, and 2.8% had severe anxiety levels.

Conclusions: Pre-operative anxiety is common among the patients undergoing surgery which leads to perioperative and post-operative complications. Female patients had more anxiety as compared to male patients.

Keywords: Anesthesia; Anxiety; Health; Pre-operative; Surgery;

INTRODUCTION

Anxiety is defined as an emotion characterized by feelings of tension, worried thoughts and physical changes like increased blood pressure and is also the feeling of unease, fear, worry, tension, and apprehension. It is a response to internal and external stimuli that can have behavioral, emotional, cognitive, and physical symptoms (Zhang et al., 2021).

There are various factors that cause anxiety in life, among them one of the factors is surgery. Preoperative period is worrying events that generate specific emotional, cognitive, and physiological responses of a patient (Sigdel, 2015).

Surgery-related anxiety is somewhat commonly accepted as a normal reaction in pre-operative patients. Research has established that waiting for surgery or invasive procedures is stressful and anxiety aggravates and affects both physiological and psychological parameters (Balasubramaniyan et al., 2016).

During anesthesia and surgery, 31% patient worry is often overlooked. Anxiety might start several days before surgery and last throughout the recovery period. When compare to the ward and the operating room, patients may be more anxious in the preoperative holding area and it is important to assess the anxiety among the patient before surgery (Hyoju, 2021)

The objectives of the study were to assess the level of anxiety among the patient undergoing surgery and to find out the association between the level of anxiety and selected variables.

This study highlighted the need for psychological assessment i.e. preoperative anxiety. Once preoperative anxiety is assessed, it will help to intervene the anxiety among preoperative patients timely and prevent intraoperative and postoperative complications.

METHODS

A descriptive cross-sectional research design was used. Research was done in Scheer Memorial Adventist Hospital. The study population was patients undergoing surgery. Sample size was calculated by using Cochran's formula and the total sample size was 141. A non-probability purposive sampling technique was used to select the samples.

Respondents who were aged 18 years and above,

undergoing both elective and emergency surgery and who gave voluntary written informed consent were included in the study. Respondents who were previously diagnosed with mental disorder, who were not fully conscious, whose consciousness level was not stable before surgery and who were unable to respond the questionnaire were excluded from the study.

The research instrument consisted of Socio-demographic Information of Patient

and Anxiety Specific to Surgery Questionnaire (ASSQ). Anxiety Specific to Surgery Questionnaire (ASSQ) was developed by Karanci and Dirikand in 2003 A.D and revised in 2017 A.D and composed of 10 items ((Almalki et al., 2017).Scoring Criteria was:

20 = no anxiety

20-37 =low anxiety level

38-44 =moderate anxiety level

45-50 =high anxiety level

Formal permission for research study was taken from Scheer Memorial Adventist Hospital Medical Institute, College of Nursing and ethical approval was obtained from the Institutional Review Committee (IRC) of Scheer Memorial Adventist Hospital. Permission for the study was taken from the Ward in-charges of selected wards of Scheer Memorial Adventist Hospital. Informed written consent was taken from all respondents before data collection. The confidentiality of the information was maintained by assuring that the information given would be used only for the study purpose. Anxiety relaxation techniques and deep breathing exercise was taught to the respondents having severe anxiety levels and informed to respective personnel. A face-to-face interview was done by the researcher herself. The data collection period was from 9th October to 6th November of 2022. About 25 to 30 minutes was taken to complete the interview of each respondent.

After completion of data collection, it was checked for completeness, handled with care, stored, organized and coded for further analysis. Data was entered on the same day of collection to minimize the errors. Data was taken and sequential coding was done. After entry, data was rechecked and analyzed by using Statistical Package for Social Sciences (SPSS) version 16.

All the collected data was tabulated, analyzed and categorized on the basis of research objectives. Descriptive statistics i.e., frequency, percentage, mean and standard deviation was used to describe demographic and related variables. Inferential statistics i.e., chi- square test and fisher exact test were used to measure the association of level of anxiety with selected socio-demographic characteristics.

Table 1. Respondents' Socio-demographic Information regarding Age, Sex, Marital Status, Type of Family

n=141

Variables	Number	Percent
Age group (in years)*		
19-48	99	70.2
49-78	42	29.8
***Mean Age : 37.76 ± 15.23**		
Sex		
Male	84	59.6
Female	57	40.4
Marital Status		
Unmarried	42	29.8
Married	91	64.5
Widows/widower	7	5
Divorced	1	0.7
Type of Family		
Nuclear	106	75.2
Joint	35	24.8
Religion		
Buddhism	12	8.5
Christianity	8	5.7
Hinduism	116	82.3
Muslim	5	3.5
Religion		
Buddhism	12	8.5
Christianity	8	5.7
Hinduism	116	82.3
Muslim	5	3.5
Ethnicity		
Bramin/Chhetri	69	48.9
Tarai/Madhesi	31	22
Dalits	10	7.1
Newar	16	11.4
Muslim	10	7.1

Table 1 shows that the majority (70.20%) of respondents were of the age group of 18-48 years and more than one-fourth (29.80%) of respondents were of age group 49-78 years. ore than half (59.60%) of respondents were female.

Table 2. Respondents' Socio-demographic Information regarding Socio-economic, Education, Occupation & Housing

n=141

Variables	Number	Percent
Socio-economic Status		
Above poverty line	141	100
Educational Status		
Illiterate	20	14.2
Literate	121	85.8
Can read & write	26	18.4
Basic Level	22	15.6
Higher Sec. Level	66	46.8
Higher Education	7	5
Occupation		
Agriculture	30	21.3
Business	43	30.5
Homemaker	27	19.1
Service	17	12.1
Student	24	17
Housing		
Own	75	53.2
Rented	66	46.8

Table 3. Respondents' Health related Information

Variables	Number	Percent
Previous surgical history (n=141)		
Yes	21	14.9
No	120	85.1
Types of previous surgery (n=21)		
Intermediate	10	47.6
Major	11	52.4
Previous anaesthetics history (n=21)		
Spinal anaesthesia	9	42.9
Block/intravenous anaesthesia	12	57.1
Duration of present illness (n=141)		
<5 days	78	55.3
≥ 5 days	63	44.7
Present type of surgery (n=141)		
Minor	18	12.8
Intermediate	22	15.6
Major	101	71.6
Present type of anaesthesia (n=141)		
General anaesthesia	32	22.6
Spinal anaesthesia	49	34.8
Block/intraveous anaesthesia	49	34.8
Local anaesthesia	11	7.8
Present type of anaesthesia (n=141)		
General anaesthesia	32	22.6
Spinal anaesthesia	49	34.8
Block/intraveous anaesthesia	49	34.8
Local anaesthesia	11	7.8

Table 3 shows that majority (85.10%) of the respondents had no previous surgical history and 14.90% had history of previous surgical history among which 7.10% and 7.80% of respondents had intermediate and major type of surgery in past.7.8% of the respondents had planned for local anesthesia during undergoing surgery.

Table 4. Respondents' Response for the Statements of Anxiety Specific to Surgery Questionnaire

n=141

Statements	Strongly disagree No. (%)	Disagree No. (%)	Neither agree nor disagree No. (%)	Agree No. (%)	Strongly agree No. (%)
I am afraid that I will be physically disabled by the operation.	31 (22.0)	19 (13.5)	7 (5.0)	69 (48.9)	15 (10.6)
I think I will feel pain during the operation.	15 (10.6)	19 (13.5)	9 (6.4)	53 (37.6)	45 (31.9)
I worry that I will have a lot of pain after the operation.	24 (17.0)	13 (9.2)	16 (11.4)	63 (44.7)	25 (17.7)
I am afraid that after the operation, I may not be able to walk again and/or not be able to care for myself as before.	27 (19.1)	16 (11.4)	9 (6.4)	62 (43.9)	27 (19.1)
I worry that I may not recover completely after the operation due to inflammation or other problems.	31 (22.0)	26 (18.4)	17 (12.1)	51 (36.1)	16 (11.4)
I am worried that I may die during operation due to bleeding or other reasons.	36 (25.6)	42 (29.8)	26 (18.4)	25 (17.7)	12 (8.5)
I am afraid that I may not regain my consciousness after the operation.	48 (34.0)	26 (18.4)	16 (11.4)	36 (25.6)	15 (10.6)
I believe that I will get rid of all pains and problems after the operation.*	5 (3.5)	1 (0.7)	13 (9.2)	40 (28.4)	82 (58.2)
Thought of dying frequently comes to my mind.	52 (36.9)	27 (19.1)	36 (25.5)	22 (15.6)	4 (2.9)
If something happens to me, my family and children will remain helpless.	25 (17.7)	5 (3.5)	6 (4.3)	35 (24.8)	70 (49.7)

*** reverse score**

Table 4 shows that the statement,related to anxiety among thepatient undergoing surgery "if something happen to me, my family and children will remain helpless" had top anxiety (49.6%), mean ± SD = 3.8 ± 1.5) related statement whereas the low anxiety (5%) related statement was "I believe that I will get rid of all pains and problems after the operation" (mean ± SD = 1.6 ± 0.9).

Table 5. Respondents' Level of Anxiety

n=141

Level of anxiety	Number	Percent
No anxiety (<20)	22	15.6%
Low anxiety level (20-30)	79	56.0%
Moderate anxiety level (38-44)	36	25.5%
Severe anxiety level (45-50)	4	2.84%

Table 5 shows that the 15.60% respondents had no anxiety. 56.03% had a low anxiety level and 2.84% had a severe anxiety level.

Table 6. Association of Level of Anxiety with Selected Socio-demographic Variables

n=141

Variables	ASSQ Score		$\chi 2$	P value
	No anxiety (<20)	Anxiety (20-50)		
Age group (in years)				
19-48	18 (18.2)	81 (81.8)		0.3f
49-78	4 (9.5)	38 (90.5)		
Gender				
Male	18 (21.2)	67 (78.8)		0.03*#
Female	4 (7.1)	52 (92.9)		
Educational status				
Illiterate	4 (20)	16 (80)		0.5f
literate	18 (14.9)	103 (85.1)		
Occupation				
Business	7 (9.6)	66 (90.4)	4.15	0.04*
Others	15 (22.1)	53 (77.9)		
Marital status				
Married	3 (7.1)	39 (92.9)		0.08f
Single	19 (19.2)	80 (80.8)		

$\chi 2$: Pearson's Chi square test, * p value, Level of significance at <0.05, #: fisher's exact test

Table 6 shows that there was statistically significant association between gender of the respondents and level of anxiety with the p value of 0.03. Female respondents were more likely to have anxiety than male respondents. There was also significant association between occupation of the respondents and level of anxiety with the p value 0.04.

Table 7. Association between Health related Information of Respondents and Level of Anxiety

n=141

Variables	ASSQ Score		χ^2	P value
	No anxiety (<20)	Anxiety (20-50)		
Previous surgical history:				
Yes	11 (52.4)	10 (47.6)	25.34	0.001*
No	11 (9.2)	109 (90.8)		
Previous type of anaesthesia: (n=21)				
Spinal	6 (66.7)	3 (33.3)		0.2#
Block	5 (41.7)	7 (58.3)		
Previous type of surgery: (n=21)				
Intermediate	6 (60)	4(40)		0.4#
Major	5(45.5)	6 (54.5)		
Duration of present illness:				
<5 days	13 (16.7)	65 (83.3)	0.15	0.7
≥5 days	9 (14.3)	54 (85.7)		
Type of present anaesthesia:				
General	18 (22)	64 (78)	5.99	0.01*
Local	4 (6.8)	55 (93.2)		
Type of present surgery:				
Minor	3 (7.5)	37 (92.5)	2.78	0.7
Major	19 (18.8)	82 (81.2)		

χ^2: Pearson's Chi square test, * p value, Level of significance at <0.05, #: fisher's exact test

Table 7 shows that there was statistically significant association between type of present anesthesia and level of anxiety with the p value 0.01. Respondents with local anesthesia were more likely to have anxiety than respondents with general anesthesia.

DISCUSSION

In this study, majority (84.4%) of the respondents undergoing both elective and emergency surgery had preoperative anxiety which is consistent with the study findings conducted in Rupandehi, Nepal in 2019 and in Italy in 2021 which showed that four-fifth i.e., 84% and 80% respectively respondents had preoperative anxiety (Dhungana et al., 2019; Oteri et al., 2021). The study finding is inconsistent with the study conducted in Kathmandu, Nepal in 2021 where less than one-third (31%) of the respondents had preoperative anxiety (Hyoju, 2021). Similarly it is inconsistent with the study conducted in Karbala, Iraq in 2021 where more than one-third (35.60%) of respondents had preoperative anxiety (Abutiheen et al., 2021). The present study showed that there was no significant association between level of pre-operative anxiety and age in completed years (p=0.3). In the present study, 92.2% of females and 78.8% of male had preoperative anxiety and there was significant association between pre-operative anxiety and gender which means females had more pre-operative anxiety than males (p=0.03).

CONCLUSION

Preoperative anxiety is common in the patient undergoing surgery which leads to Perioperative and post-operative complications. There was statistically significant association between gender of the respondents and level of anxiety. Female respondents were more likely to have anxiety than male respondents. There was also significant association between occupation of the respondents and level of

anxiety. There was also statistically significant association between type of present anesthesia and level of anxiety. Respondents with local anesthesia were more likely to have anxiety than respondents with general anesthesia. The limitation of the study is that the respondents undergoing Emergency surgery during the data collection period were only taken. So the recommendation will be that the study can be replicated on a larger sample size using a combined quantitative and qualitative research approach to better assess the anxiety among the patient undergoing surgery.

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Review Article

Effect of Relaxation Techniques on Labor Pain Management among Primigravida: A Narrative Review

Isabel Lawot[1], Pawan Kumar Sharma[2] & Sumit Pokhrel[3]

[1] PhD Scholar Sharda University and Maharajgunj Nursing Campus, TUIOM,

[2] Professor, Sharda University Greater Noida UP India,

[3] Professor and Senior Consultant Bharatpur Hospital Chitwan, Nepal

Corresponding Author: Isabel Lawot

Email: isulawot@gmail.com

ABSTRACT

Introduction: The intensity of labor pain, intensified by body tension, anxiety, and fear, can be significant. Numerous women prefer to undergo labor without utilizing pharmaceuticals or invasive procedures like epidurals. Instead, these women frequently seek complementary therapies as relaxation techniques to alleviate labor pain and enhance their overall labor experiences. The study aims to examine the literature to assess the effects of relaxation techniques for labor pain management during labor among primigravida.

Methods: A comprehensive review of published (from 2015 to 2023) literature and journal articles from PubMed, EBSCO CINAHL Plus,Google Scholar, ScienceDirect, and Scopus databases which were published in the English language only. Initial 205 titles were retrieved. After screening, 9 articles were selected for a full test screening based on the inclusion criteria using the PRISMA Protocol. Two independent reviewers reviewed the article to arrive at a consensus.

Results: Various research studies have indicated that the effect of relaxation techniques such as yoga, mindfulness-based intervention, breathing exercises and music therapy reduces labor pain during first stage of labor significantly. On review, the study group showed labor pain (6.72) using VAS had a significantly lower average score (P=0.001) compared to those in the control group (9.36).

Conclusion: It can be concluded that various studies have shown that relaxation techniques which are yoga, mindfulness-based intervention, breathing exercises and music therapy reduce labor pain. Therefore, this method can serve as a non-pharmacological approach to lessen the sensation of labor pain.

Key Word: Breathing exercise; music therapy; relaxation technique; yoga;

INTRODUCTION

Pregnancy and childbirth hold a special period in every woman's life, encompassing both physical and emotional transformations. During labor, women undergo a diverse spectrum of pain experiences and demonstrate a similarly diverse array of reactions to it (Dengsangluri & Salunkhe, 2015).The intensity of labor pains, intensified by body tension, anxiety, and fear, can be significant. Numerous women prefer to undergo labor without utilising pharmaceuticals or invasive procedures like epidurals. Instead, these individuals frequently seek complementary therapies to alleviate labor pain and enhance their overall labor experiences(Smith et al., 2018).

Intense anxiety during labor heightens the chances of requiring a cesarean section, leading to potential challenges for both the mother and the fetus post-delivery. This situation can impose financial burdens on the family and the state, often prolonging hospital stays. Numerous methods, both pharmacological and non-pharmacological, have been suggested for managing and reducing labor pain up to now(Kaple& Patil, 2023).

Relaxation methods target producing the body's innate relaxation response, marked by reduced breathing rate, decreased blood pressure, and heightened sense of wellness. These techniques are typically believed safe for individuals in good health, although there have been isolated cases of adverse effects such as heightened anxiety. Among the relaxation techniques covered in this review are guided imagery, progressive muscle relaxation, breathing exercises, yoga, and meditation(Smith et al., 2018).

According to WHO, Relaxation methods like progressive muscle relaxation, controlled breathing, music therapy, mindfulness, and other techniques are advised for expectant mothers in good health who

seek pain relief during labor, tailored to individual preferences(WHO, 2020).

Research findings indicate that engaging in yoga during pregnancy leads to reduced labor pain intensity, shortened labor duration, fewer cesarean sections, decreased use of oxytocin augmentation and intravenous analgesics, improved rates of vaginal delivery, and enhanced pain tolerance (Boopalan et al., 2023). An experimental study suggested that offering mindfulness-centeredcounselling enhances the childbirth journey and alleviates labor pain during delivery(Oskoui et al., 2023).Another interventional study of the utilization of breathing techniques proves to be an effective approach for diminishing pain intensity during labor (Arafat Goda et al., 2021). A study in Korea also have reported that music therapy during labor had lower levels of latent ($t=1.95$, $p=.005$)and active phase pain ($t=3.69$, $p<.001$) which was measured using numerical rating scale(An et al., 2023).

However, effect of relaxation techniques on labor pain management among primigravida have limited comprehensive research or evidence specifically examining the impact of relaxation techniques such as yoga, mindfulness-based intervention, breathing exercise and music therapy on managing labor pain among first-time pregnant individuals. This suggests that there is a need for further studies or exploration in this area to better understand the effectiveness of relaxation techniques in alleviating labor pain for primigravida women. Thus, this study aimed to examine the literature in order to assess the effects of relaxation techniques for labor pain management during labor among primigravida.

METHODS

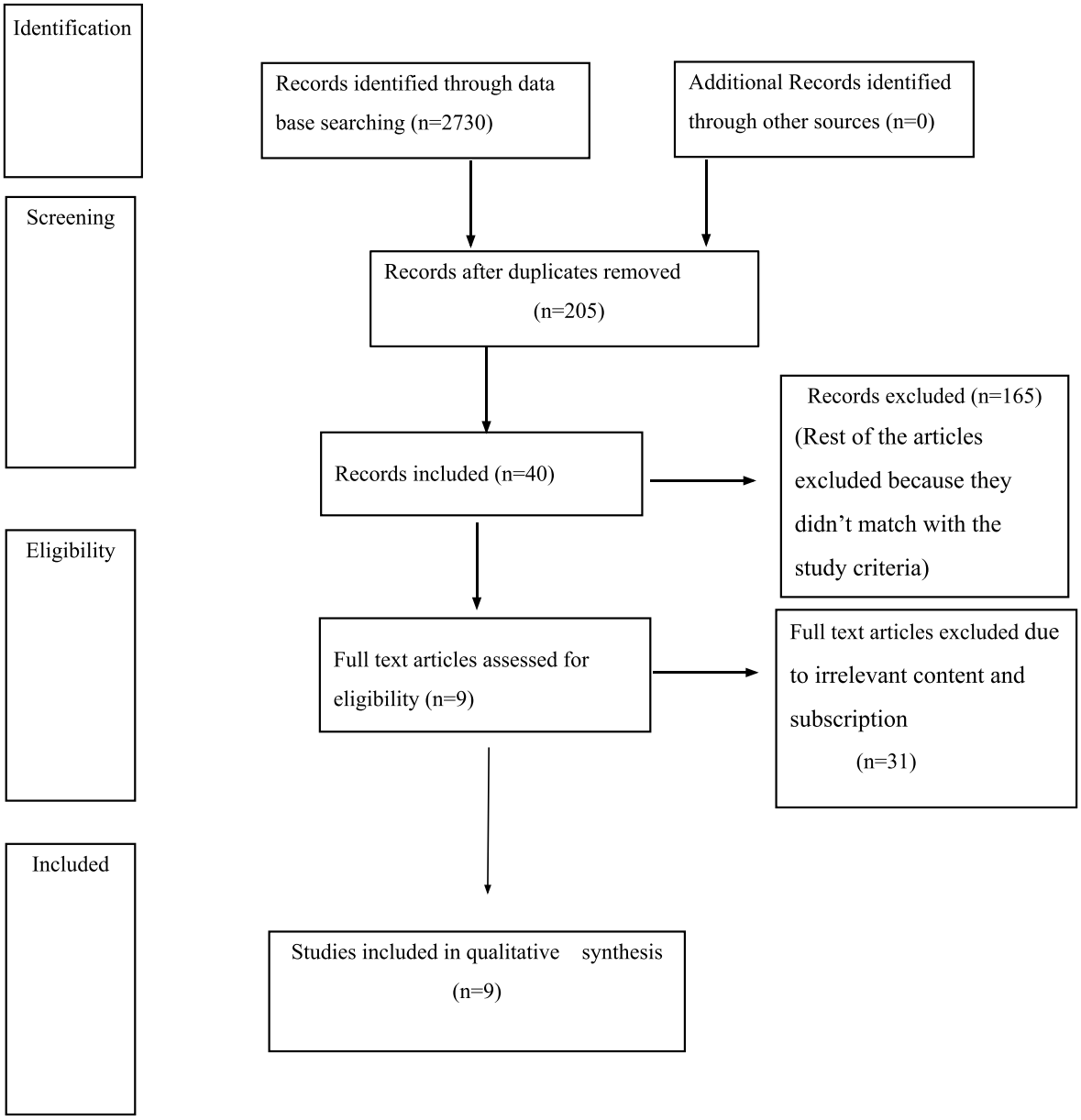
A thorough analysis was conducted on articles gathered from electronic search with a focus on the specified subject matter. The aim of this review was to locate studies that explored the literature, aiming to evaluate the effects of relaxation techniques work for labor pain management among first-time mothers in different healthcare settings during the labor. The review involved meticulous examination of electronic databases such as PubMed, EBSCO CINAHL Plus, Scopus, ScienceDirect and Google scholar. The chosen articles were derived from pertinent journals in the healthcare science field. The search was guided by MESH parameters, targeting studies published in the English language between 2015 and 2023 based on PRISMA protocol(Page et al., 2021). The criteria for inclusion and exclusion were applied, ensuring access to full article content. The studies selected in this manner specifically highlighted the pain reduction of different relaxation techniques during the first stage of labor, along with other outcomes.

Data Extraction

The literature search inclusion criteria focused on quantitative randomized control trial study design conducted in healthcare centers of different countries. Literature related to only primigravidamothers whose intervention was started from 26 weeks of pregnancy to until delivery and only those articles were included which were written in English language. Studies examining the literature in order to assess the effect of relaxation techniques on labor pain management during labor amongprimigravida mothers were included. Initially, the search yielded a total of 2730 studies on the topic relaxation technique, labor pain and birth outcomes among primigarvidamothers separately. Among these, 2525 studies were excluded due to not included all variables and unavailability of the full text, and an additional 165 research studies were eliminated based on the predetermined inclusion and exclusion criteria. From40 studies which meet few inclusion criteria, ultimately, 9 studies were included in the review, ensuring that each selected study's outcome measurement was related to labor pain management.

Quality Appraisal Criteria

The researchers employed standardized tools available to assess the effect of relaxation technique on labor pain management among primigravida mothers. The instruments utilized in the studies were the visual analogue scale, numerical pain intensity scale and Wong Baker’s Facial Pain Scale. The use of this standardized instrument adds credibility to the study, as the findings were found to be valid.



PRISMA FLOW CHART

RESULTS

Based on the inclusion criteria, 9 articles published were closely relevant were included in the present review. Details of the studies are given below; a total of 9 research studies used randomized control trial.

First Author (year)	Aim	Site	Study design	Participants with sample size	Instrument	Intervention	Findings
(Bolanthakodi et al., 2018)	To assess whether prenatalyogaare efficient in reducing labor pain and enhancing childbirth results.	India	Randomized Control Trial (RCT)	30 weeks onward Primigravida women age 20-35 years 75 in each study and control group	Numerical Pain Intensity Scale (NPIS)	30 minutes yoga at least 3 times a week from 30-39 weeks of gestation	The mean NPIS at the onset of first stage (3-4 cm cervical dilation) of laborwas significantly less in the study group when compared with the control group ($p < 0.001$),however, at 8-10 cm of cervical dilation the pain was not significantly less.
(Jahdi et al., 2017)	To investigate the effects of prenatal yogaon labor pain and delivery outcomes	Iran	RCT	60 primiparous women, aged 18-35 years, 30 in each study and control group	Visual Analog Score (VAS)	Yoga starting at the 26th and continuing until the end of their 37th week of gestation 60-minute yoga work out three times a week.	The 3 times VAS score shows significantly lower labor pain among intervention group than control group($p=0.01$, 0.000) and duration of all three stages of labor were shorter than control groups
(Mohyadin et al., 2021)	To examine the effect of yoga in pregnancy on anxiety, labor pain and length of labor stages.	Iran	RCT	26 to 37 weeks of pregnancy nulliparous women age more than 18 years 42 in each study and control group	(VAS)	A 60-min yoga training session was conducted by a skilled yoga instructor at weeks 26, 28, 30, 32, 34, and 36 of pregnancy(20 minutes in each session in a week at home)	The mean pain scorewas significantly less than control group at 4-5 cm and 2 hours after first assessment of labor ($p<0.001$) women in intervention group experienced shorter duration of the first phase of the labor than the control group ($p=0.002$).
(Majeed et al., 2022) (Inam et al., 2021)	To investigate the effect of breathing exercise as prenatal education to primigravid on labor pain	Pakistan	RCT	140 Primigravida 18 to 30 years age group women 70 in each study and control group	(VAS)	Instructed for three kinds of breathing exercises to undertake during the first stage of labor which are slow deep, light accelerated and varied (transition) breathing	Every 30 minutes pain assessment indicated that mothers in the study group labor pain (6.72) had a significantly lower average score ($P=0.001$) compared to those in the control group (9.36). Throughout labor, both groups' pain levels increased, but the study group reported experiencing less pain than the control group.
(Dengsangluri & Salunkhe, 2015)	To assess the effect of breathing exercise on pain intensity during labor	India	RCT	48 primigravida women 24 in each study and control group	Wong Baker'sFacial Pain Scale	Slow paced breathing Technique during each contraction from the beginning of contraction to contraction ceased	Three times in 45 minutes interval after intervention pain was assessed and labor pain was significantly lower than control group.

(Oskoui et al., 2023)	To evaluate the impact of mindfulness-based counseling on the childbirth experience of primiparous women.	Iran	RCT	64 primiparous with gestational age of 32 to 34 weeks 32 in each study and control group	VAS	Received eight counseling sessions in a combination of four online and four face-to-face sessions for 45 min once a week. Home: 45 min of meditation treatment	According to the ANCOVA test, the meanscore of labor pain in the intervention group was significantly lower than that in the control group after the intervention [MD: 0.56, 95% CI: 0.37 to 1.50, P < 0.001]
(Duncan et al., 2017)	To assess the effect of mindfulness training on labor pain tolerance.	USA	RCT	30 primigravida third trimester 15 in each study and control group	VAS	The nine week a total 18 hours mindfulness-based Childbirth and Parentingprogram for coping with labor- related pain and fear are taught through interactive, experiential activities	This study suggests mindfulness training carefully altered to address fear and pain of childbirth may lead to important maternal mental health benefits and lower rate of opioid analgesia use in labor
(Gokyildiz Surucu et al., 2018)	To assess the effect of music therapy on labor pain and anxiety among primigravida	Turkey	RCT	50 primigravida 37 to 42 weeks of pregnancy 25 in each study and control group	(VAS)	The experimental group underwent a session of listening to music in the Acemasiran mode for 3 hours during the active phase of labor. This involved 20 minutes of listening followed by 10 minutes of rest, all with earphones (with a dilation of 4 cm). Pain measurements were taken 30 minutes after the commencement of music listening and then at hourly intervals thereafter.	It was observed that after the first-hour of music therapy women indicated that their pain was statistically less in the experimental group. Trait anxiety scores of the women in labor were similar for experimental and control groups.
(Buglione et al., 2020)	To investigate the effects of music therapy on labor pain, among nulliparous	Italy	RCT	30 primiparous 37 weeks of gestation 15 control and 15 experimental group 70 in each study and control group	(VAS)	Offered music in labor, defined listening to music via speakers from the randomization until the delivery of the baby.	Pain level during the active phase of labor was scored 8.8 ± 0.9 in the music group, and 9.8 ± 0.3 in the control group (MD − 1.00 point, 95% CI − 1.48 to − 0.52; P < 0.01) listening to music reduces the pain level.

DISCUSSION

This narrative review aimed to assess the available research on antenatal yoga, mindfulness intervention techniques,breathing exercises and music therapy particularly its effectiveness in alleviating labor pain. The findings of this narrative review indicate that engaging in antenatal yoga can indeed lessen the intensity of labor pain during childbirth.

The current narrative review presented findings indicating that participating in relaxation technique can alleviate labor pain during childbirth. In a recent analysis reviewing the impact of relaxation technique involve three prenatal yoga, two breathing exercises, two mindfulness-based intervention and two music therapy on childbirth pain, encompassing a combined total of 656 women were examined. The findings demonstrated a significant reduction in labor pain associated with relaxation technique. These findings align with systematic review and meta-analysis results, emphasizing the effective reduction of prenatal yoga in easing labor pain (Boopalan et al., 2023).Similar result was reported thatmothers who engaged in exercise during pregnancy experienced more labor pain compared to those who practiced yoga, (Simbolon et al., 2023).

This review shows that breathing exercise during labor can reduce labor pain significantly which is consistent with the study conducted in India (Kaple & Patil, 2023). According to this review, labor pain also reduce by using mindfulness-based intervention which is similar with the study stated that it reduces the labor pain(Azh et al 2021). Music therapy is one of the complementary therapy which can minimize the labor pain which is shown in this current review and it is supported by the study(Gautam et al., 2023).

CONCLUSION

Based on a comprehensive review of multiple studies, it can be concluded that various studies have shown that relaxation technique which are yoga, mindfulness-based intervention, breathing exercise and music therapy reduce labor pain. Therefore, this method can serve as a non-pharmacological approach to lessen the sensation of labor pain and prevent the unnecessary invasive procedure as well as side effects of pharmacological interventions.

LIMITATIONS

Data according to inclusion criteria was limited.

RECOMMENDATIONS

Relaxation techniques such as yoga, mindfulness-based intervention breathing exercise and music

therapy can be used as non-pharmacological method of labor pain management for laboring mothers.

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Ethical approval: Not required

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