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ASSESSMENT OF KNOWLEDGE, ATTITUDE, AND PRACTICE REGARDING PATIENTEDUCATION AMONG NURSES WORKING IN A TERTIARY CARE HOSPITALS OF PESHAWAR

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ABSTRACT
Background: Patient education is a vital role in the provision of healthcare, and nurses perform critical role in facilitating effective patient learning. The results of this study provide a comprehensive view of the knowledge, attitude, and practice of patient education among nurses at tertiary care hospitals of Peshawar, shedding light on various aspects that influence the delivery of healthcare services.
Objective: To investigate the knowledge, attitude, and practice of patient education among nurses.
Methodology: The current cross-sectional study included 197 registered nurses from lady reading, Hayatabad medical complex and Khyber teaching hospital of Peshawar Pakistan. The data was gathered using a self-administered questionnaire, and SPSS was utilized for analysis. The study participants were chosen by a convenient sampling technique.
Results: The demographic analysis revealed a predominance of female nurses (84.1%), with the majority aged 26-30 years (51.7%). Educational qualifications varied, with 55.4% holding diplomas and 44.6% possessing BSN degrees. Marital status showed a near-equal split between single (46.3%) and married nurses (53.7%). Knowledge scores averaged at 16.31 out of 20, indicating a moderate understanding of patient education principles, with female nurses scoring slightly lower than males. Practice scores averaged at 15.65, reflecting varied implementation of patient education strategies, and attitude scores averaged at 15.77, denoting generally positive perceptions towards patient education. Significant correlations were found between knowledge and attitude (r = 0.367) and attitude and practice (r = 0.412), suggesting that higher knowledge levels are associated with more positive attitudes and better educational practices.
Conclusion: In conclusion, the demographic insights and analysis of knowledge, attitudes, and practices regarding patient education among nurses highlight

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opportunities for improving nursing practices and patient outcomes. By addressing identified needs and leveraging current strengths.

INTRODUCTION

Patient education is undeniably a fundamental pillar of contemporary healthcare, serving as a linchpin that enables patients to actively participate in their care, make well- knowledgeable decisions, and effectively navigate the management of their health. Within the realm of healthcare provision, nurses emerge as frontline champions, wielding an essential part in providing patient education due to their frequent and direct interactions with patients. The significance of effective patient education is magnified in such tertiary care settings, where patients present with intricate and multifaceted medical needs, demanding a comprehensive grasp of their conditions and treatment plans (Hart, 2021). In recent years, the field of nursing has evolved globally, with an increasing emphasis on evidence-based practice and patient-centered care (Hickey et al., 2018). Patient education is integral to this paradigm shift, as it aligns with the principles of patient-centered care and shared decision-making (Curtis, 2018). This study aims to close this disparity by investigating and assessing the level of knowledge, attitudes, and practices related to patient education among nurses in the tertiary care hospitals. By doing so, we aim to identify potential challenges, deficiencies, and opportunities for improvement in patient education practices, ultimately contributing to the enhancement of nursing care, patient outcomes, and the overall quality of healthcare delivery and potentially other similar healthcare institutions (Simonsmeier, Flaig et al. 2022). Despite the recognized importance of patient education in improving health outcomes, enhancing patient satisfaction, and ensuring patient engagement in their healthcare decisions (Hogan, 2019; Hughes, 2019), there is a significant gap in the current literature regarding the specific context of patient education within tertiary care hospitals of Peshawar. Most research on patient education is conducted in Western healthcare systems and broader healthcare settings (Curtis, 2018). Consequently, comprehensive studies investigating the knowledge, attitude, and practice of patient education among nurses in Pakistani tertiary care hospitals like Peshawar are scarce (Hickey et al., 2018). Additionally, as the healthcare landscape in Pakistan evolves towards patient-centered care and shared decision-making (Hickey et al., 2018), an up-to-date assessment of nurses' knowledge, practices, and attitudes toward patient education is crucial. This assessment will help identify current gaps and inform targeted educational and training initiatives. The significance of this study is multifaceted. It evaluates nurses' competence in patient education, a key aspect of patient-centered care, and its findings can inform training programs to enhance patient education practices and outcomes. Understanding nurses' attitudes and knowledge levels helps identify barriers and facilitators, enabling targeted interventions. This research contributes to healthcare and nursing knowledge, particularly in a tertiary care hospital in Peshawar, and can guide future studies and policy creation to optimize patient care quality and the role of nurses (Lalani NS, 2020).

Methodology

This study will employ a cross-sectional research design to assess the knowledge, attitudes, and practices of nurses at the tertiary care hospital of Peshawar, Pakistan. , a state-of-the-art tertiary care hospital specializing in all departments, provides a unique setting for this research due to its advanced medical technology and multidisciplinary healthcare team. The study was taken place over four months, from August to November, encompassing data collection, analysis, and interpretation. A sample size of 197 nurses, selected through convenient sampling, was assessed using a standardized questionnaire comprising sections on consent, demographics, knowledge, attitude, and practices related to patient education. Data was analyzed using SPSS, employing descriptive and inferential statistics, along with qualitative content analysis for open-ended questions. Inclusion criteria include nurses who have experience for at least six months, of any gender and age group, and who voluntarily consent to participate. Exclusion criteria encompass nurses employed for less than six months, those on leave, and those who do not provide informed consent. Ethical considerations have been addressed with approval from the Ayub International college of Nursing Peshawar Ethics Committee and the Hospital's Institutional Review Board, ensuring participant confidentiality and adherence to the

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Declaration of Helsinki. Participation is voluntary, and informed consent is required before completing the 15-minute questionnaire.

Results
Demographics Results
The demographic analysis of the study participants revealed a significant gender distribution among nurses. The majority of respondents were female, accounting for 84.1% of the total, while male nurses made up a smaller portion, representing 15.9% of those surveyed. This distribution highlights the dominant presence of female nurses within the nursing workforce at Peshawar tertiary care hospitals. While the age distribution of the respondents showed that the majority, 51.7%, were between 26-30 years old. Nurses aged 31-35 years made up 29.1% of the participants, while 13.2% were in the 21-25 year age range. A smaller group, 6.1%, consisted of nurses over 35 years old. This range highlights a diverse nursing workforce at critical care are, with a mix of both early-career and experienced professionals. Moreover the majority of respondents held diplomas, constituting 55.4% of the surveyed cohort. Meanwhile, nurses with a Bachelor of Science in Nursing (BSN) degree accounted for 44.6% of the participants. Among the surveyed cohort, 46.3% of nurses were single, while 53.7% were married. This parity in marital status suggests a diverse mix of personal circumstances and responsibilities among the nursing staff at PKLI.Fig1.1, 1.2, 1.3and 1.4
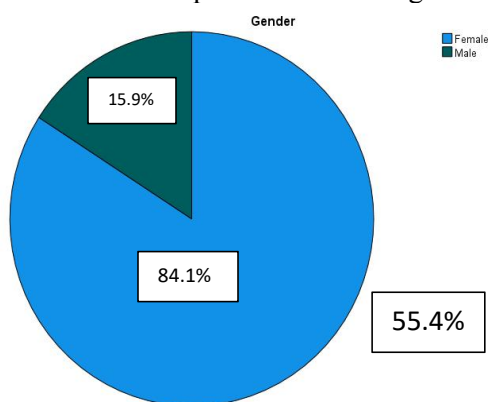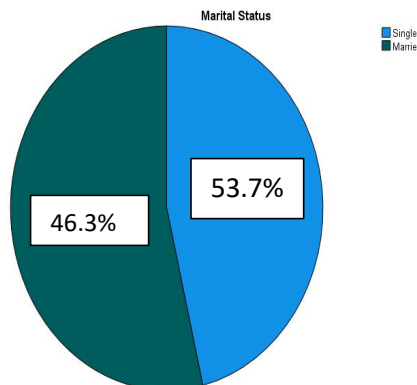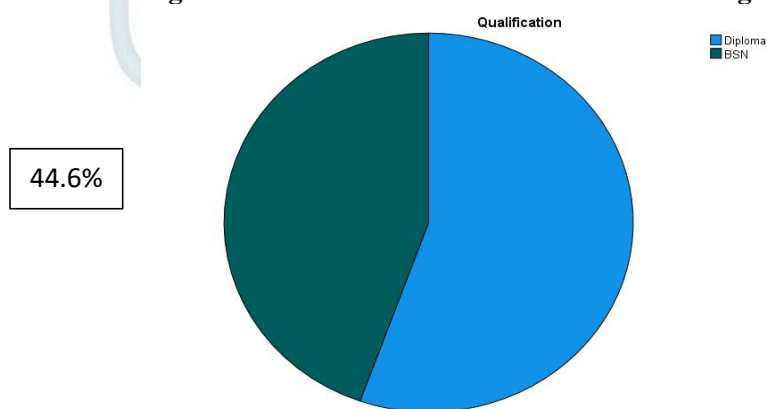

Fig 1.1

Fig1.2

Fig 1.3

Knowledge regarding Patient Education
The detailed analysis of responses to the knowledge questions on patient education reveals a complex picture of nurses' understanding of patient education principles and practices. Among the respondents, the majority demonstrate varying levels of agreement with their grasp of these principles, with 56.3% agreeing and 26.4% strongly agreeing. However, a significant number remain neutral (11.5%) or disagree (5.7%), indicating a range of understanding among the nursing staff. Similarly, while a large portion of nurses feel confident in

identifying the key components of effective patient education, with 51.7% agreeing and 36.5% strongly agreeing, some express uncertainty, with 6.8% neutral and 5.1% disagreeing. Additionally, although most respondents acknowledge the importance of staying current with evidence-based guidelines for patient education (51.0% agreeing and 34.8% strongly agreeing), a notable percentage remains neutral (10.8%) or disagrees (3.4%), suggesting potential gaps in knowledge dissemination or accessibility. The survey also highlights a divide in nurses' confidence in providing accurate information to patients, with 58.1% agreeing and 21.6% strongly agreeing, while 14.5% are neutral and 5.7% disagree. These results reflect the complex nature of nurses' perceptions and competencies in patient education. Fig 1.5
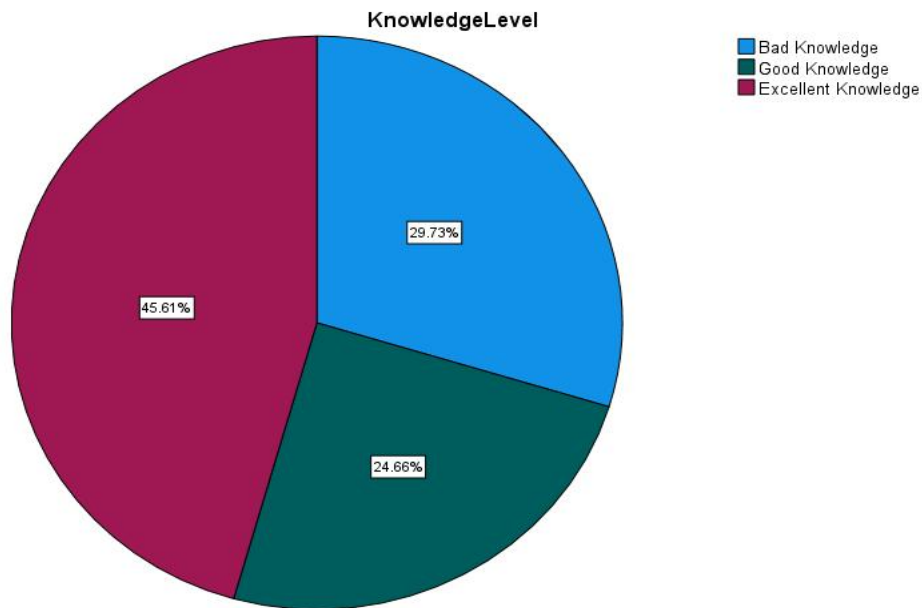

Fig 1.5

Practice regarding patient education

A majority of nurses report consistently assessing patients' educational needs (63.9%), reflecting a proactive approach in customizing education plans. Additionally, a considerable number agree that they utilize various teaching methods (52.7%) and provide written materials and resources (57.4%) to aid patient comprehension, demonstrating a commitment to addressing different learning styles. However, there is room for enhancement, particularly in evaluating the effectiveness of patient education through feedback, with only 43.6% of nurses agreeing they engage in this practice. These findings highlight the need for ongoing improvement in patient education strategies, emphasizing the importance of a comprehensive approach that includes regular assessments, diverse teaching methods, resource provision, and effective evaluation mechanisms to improve patient outcomes and satisfaction. Fig 1.6
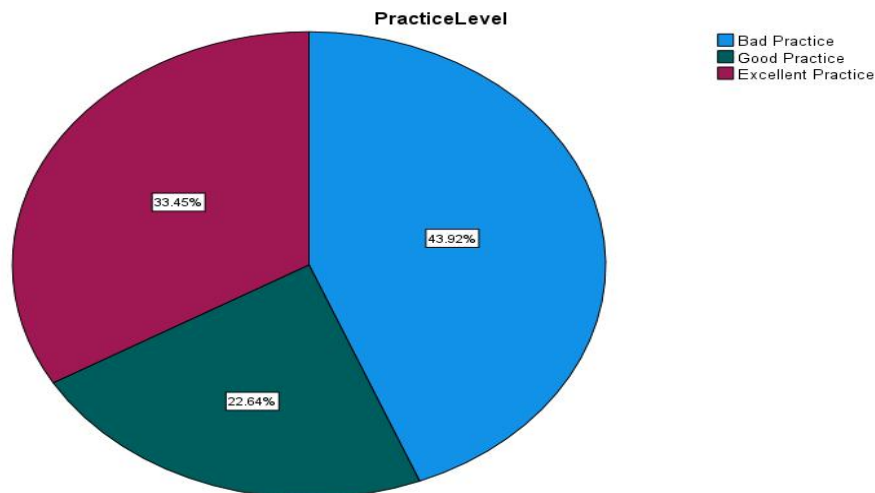
Fig 1.6

Nurses Attitude towards Patient Education

A majority of nurses view patient education as a key aspect of their role (55.4%), showing a strong commitment to educating patients. However, some nurses express disagreement or uncertainty (10.2%), indicating differences in how they perceive the importance of education within their nursing duties. Most nurses agree that patients have the right to understand their health conditions and treatment options (81.1%), reflecting a patient-centered care approach, though a small minority (6.4%) express differing views on patient autonomy in healthcare decisions. Additionally, while many nurses are willing to invest time and effort in patient education (73.6%), a few express reluctance or uncertainty (7.1%), pointing to potential challenges in balancing education with other nursing responsibilities. Despite this, the majority believe that effective patient education improves patient outcomes (81.8%), underscoring its vital role in promoting health and well-being, although a small group (17.2%) remains uncertain or disagrees. These findings highlight the need to promote a culture of patient-centered care and advocate for ongoing education to improve patient outcomes. Fig 1.7

	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
	F	N %	F	N %	F	N %	F	N %	F	N %
Patient education is an essential part of my nursing role.	4	1.4%	25	8.4%	56	18.9%	164	55.4%	47	15.9%
I believe that patients have the right to understand their health conditions and treatment options.	3	1.0%	16	5.4%	34	11.5%	134	45.3%	109	36.8%
I am willing to invest time and effort in patient education.	16	5.4%	5	1.7%	57	19.3%	156	52.7%	62	20.9%
I think that effective patient education leads to improved patient outcomes.	1	0.3%	14	4.7%	39	13.2%	150	50.7%	92	31.1%

Table 1.7

Correlation among different variables

The correlation analysis of various factors related to patient education among nurses reveals several important relationships:

Knowledge and Attitude Scores: A moderately positive correlation exists between knowledge and attitude scores (r = 0.367, p < 0.01), indicating that nurses with higher knowledge levels tend to have more positive attitudes towards patient education.

Attitude and Practice Scores: There is a moderate positive correlation between attitude and practice scores (r = 0.412, p < 0.01), suggesting that nurses with more positive attitudes towards patient education are more likely to implement effective patient education practices.

Age and Qualification: A significant positive correlation is observed between age and qualification (r = 0.237, p < 0.01), showing that older nurses and those with higher qualifications tend to be positively associated.

Practice Scores and Age: A statistically significant but weak negative correlation exists between practice scores and age (r = -0.052, p > 0.05), suggesting that older nurses may have slightly lower practice scores, although the correlation is not strong.

Practice Scores and Qualification: A weak negative correlation is also noted between practice scores and qualification (r = -0.132, p < 0.05), indicating that nurses with higher qualifications may have slightly lower practice scores.

These findings highlight the complex relationships between knowledge, attitude, and practice levels among nurses.tabel 1.9

Correlations						
		Knowledge	Attitude	Practice	Age	Qualification
Knowledge	Pearson Correlation	1	.367**	.166**	.001	.024
	Sig. (2-tailed)		.000	.004	.987	.685
	N	296	296	296	296	294
Attitude	Pearson Correlation	.367**	1	.412**	-.055	-.027
	Sig. (2-tailed)	.000		.000	.348	.650
	N	296	296	296	296	294
Practice	Pearson Correlation	.166**	.412**	1	-.052	-.132*
	Sig. (2-tailed)	.004	.000		.371	.023
	N	296	296	296	296	294
Age	Pearson Correlation	.001	-.055	-.052	1	.237**
	Sig. (2-tailed)	.987	.348	.371		.000
	N	296	296	296	296	294
Qualification	Pearson Correlation	.024	-.027	-.132*	.237**	1
	Sig. (2-tailed)	.685	.650	.023	.000	
	N	294	294	294	294	294
**. Correlation is significant at the 0.01 level (2-tailed).						
*. Correlation is significant at the 0.05 level (2-tailed).						

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Table 1.9

Discussion

The study was conducted at tertiary care hospitals of Peshawar, provides a thorough analysis of the demographic characteristics, knowledge, attitudes, and practices related to patient education among nurses. The findings reveal that the nursing workforce is predominantly female (84.1%), with males making up just 15.9%, reflecting a global trend in nursing as a female-dominated profession (Shields, 2013). This gender imbalance, rooted in historical and societal perceptions, has implications such as perpetuating stereotypes and limiting diversity within the profession. To create a more inclusive workforce, strategies like targeted recruitment campaigns, addressing gender biases in nursing education, and promoting male role models are essential (Rajacich et al., 2013; McMurry et al., 2016). Additionally, the study highlights that most nurses are relatively young, with a significant portion aged 26-30 years (51.7%) and 31-35 years (29.1%), aligning with trends of a youthful nursing workforce seen in other regions (Spetz, 2020). While younger nurses bring contemporary practices and a willingness to embrace new technologies, they may also face challenges due to a lack of experience. Robust mentorship programs and continuous professional development opportunities can help address these challenges, with experienced nurses playing a critical role in mentoring younger colleagues (Johnson et al., 2015).

Moreover, the study indicates a balanced mix of educational qualifications among nurses, with 55.4% holding diplomas and 44.6% possessing a Bachelor of Science in Nursing (BSN) degree. This balance mirrors a broader trend emphasizing higher education in nursing, as research shows that BSN-prepared nurses are associated with better patient outcomes (Aiken et al., 2014). Hospitals should support diploma holders in pursuing further education, such as bridging programs, and integrate advanced education into professional development frameworks. The study also examines the impact of marital status, finding that 53.7% of nurses are married, which can influence job satisfaction, work-life balance, and stress levels (Lu et al., 2012). Healthcare institutions should consider implementing work-life balance initiatives, such as flexible scheduling and family leave policies, to support both married and single nurses (Yildirim & Aycan, 2008). Overall, the study underscores the importance of continuous professional development, supportive policies, and a commitment to patient-centered care in enhancing patient education and outcomes. Future research should explore innovative approaches, including the role of technology in patient education, and address emerging challenges in the field.

Conclusion

The findings underscore the essential role of nurses in patient education, highlighting both strengths and areas for improvement in the current practices. The predominantly female, youthful nursing workforces are characterized by a mix of educational qualifications and a balanced marital status, which have implications for patient education and overall job performance. The knowledge scores among nurses suggest a moderate understanding of patient education principles, with some variability in confidence levels. Attitudes towards patient education are generally positive, with most nurses recognizing its importance in patient outcomes. However, the study reveals room for improvement in the practical implementation of patient education strategies, particularly in the areas of feedback evaluation and the consistent use of diverse teaching methods.

Recommendations.

Government should invest in ongoing professional development and education programs to ensure that nurses stay updated on the latest patient education practices and guidelines. To implement robust mentorship programs where experienced nurses can guide younger or less experienced colleagues. this will help bridge the gap between knowledge and practice, ensuring that best practices in patient education are consistently applied, moreover promote a culture of patient-centered care, address work-life balance, incorporate technology in patient education as well as conduct further research: future studies should explore the impact of different educational interventions and strategies on patient outcomes. Research should also examine the role of technology in patient education and address emerging challenges in the rapidly evolving healthcare environment

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