

**RESEARCH PAPER****Exploration of the Relationship between the Training Needs of Nurses and Nurses' Learning in Pakistan****¹Shaheen Akhtar*, ²Taslim Kouser, ³Shagufta Jan**

1. Assistant Public Health Nursing Superintendent, College of Nursing, DHQ Hospital Bahawalnagar, Punjab, Pakistan
2. Public Health Nursing Supervisor, College of Nursing, DHQ Hospital Bahawalnagar, Punjab, Pakistan
3. Charge Nurse, College of Nursing, DHQ Hospital Bahawalnagar, Punjab, Pakistan

***Corresponding Author** shaheenakhtarbnw11@gmail.com**ABSTRACT**

Enhancing the performance of nurses is mostly dependent on training. The purpose of this study is to evaluate nurses' training needs to determine their learning needs. The design of this study was mixed methods. The interview schedule was conducted with the participants. In the second stage of the qualitative study, eight nurses were interviewed in an organized manner. 413 nurses took part in this poll. With a mean score of 3.8 (SD: 0.7), nurses were found to be competent in meeting fluid and electrolyte needs. Mixed training was the most anticipated training model (47.2%), followed by audio-visual media (94.7%), internal training (95.2%), and training time flexibility (68%). The interviews' findings suggest that mapping the nurse's competency is essential. A full assessment of the training needs should be conducted, taking into account the demand for media and other learning resources.

Keywords: Learning Needs, Nurses, Training Needs**Introduction**

Training is a crucial organizational function that aims to enhance trainees' performance by fostering favorable changes in their perspectives, skills, and knowledge (Jira et al., 2020). Both temporary and permanent staff receive training to equip them with the abilities necessary to perform their duties in accordance with standards (Mohanraj & Nadu, 2017). Training may be the best way to increase performance, depending on the results of a needs assessment. By assessing training needs, it is ensured that investments in time and resources are not being wasted (Barbazette, 2006).

Human resources (HR) are vital compared to other firm assets because they oversee the business's structure. HR should be seen as a partner in achieving company goals, in addition to demanding particular consideration and the fulfillment of rights. The goal of developing or training underperforming staff members is to reduce the disparity in their skills (Jira et al., 2020).

According to Ludwikowska's (2019) research, there is a positive correlation between training requirements analysis, training transfer, and employee efficiency. The organization will gain from this discovery as it will aid in the creation of training programs for continuing professional development that will boost productivity. According to Mahmud et al. (2019) and Sarre et al. (2018), training is strategically important for enhancing employee performance and capacities to support healthcare staff.

The TNA survey results can help the coaching team develop effective learning strategies for employees within organizations (Purnell, 2020). They can also be used as a starting point for educational planning in continuing education, which can give nurses valuable knowledge and skills efficiently and economically (Mohamadi et al., 2019). Lastly,

the results can be used as a straightforward analysis to determine training needs (Febriani & Yusuwarsono, 2018).

Literature Review

Every hospital does a TNA to evaluate each employee's knowledge, skills, and abilities in support of the facility's mission to offer safe, high-quality healthcare. The only information included in the TNA results is the type of training, the quantity of participants, and the training site. The TNA does not address the need for instructional strategies, learning resources, or training formats that give nurses the chance to learn on their own. In the medical field, nurses are the first responders (Goodwin et al., 2020).

The International Council of Nursing (ICN) claimed that 90.000 nurses had Covid-19 infection, and that these workers reported 260 deaths (Pereira, 2020). Continuous professional development is essential for all medical professionals, including nurses, to stay up to date and provide high-quality treatment (Alnair et al., 2019).

According to Febriani & Yusuwarsono (2018), a government organization must always offer assistance to every employee in order to help them cope with changes that arise, such as internal and external changes, by enhancing competency via training. The LNA is used to identify the most important learning strategies, not to document educational needs. It is imperative to identify what people or groups need to learn (Mohamadi et al., 2019) and offer training if there is a major change in a skill (Pilcher, 2016).

To ensure that every nurse has the chance to obtain fair and suitable training, training must be tailored to career routes (Alnair et al., 2019). Effective education and training programs must be put in place to guarantee good practice during the COVID-19 pandemic because officers' awareness and preparedness for coping with a pandemic are rated in the low category (Elhadi et al., 2020). According to Casline et al. (2021), the training division should put in place a program that caters to needs.

This gap outlines the elements that training departments need to take into account when putting into practice a physical distancing policy. These elements include protecting students' and clients' health, guaranteeing the administration of standardized assessments, providing opportunities for developmentally appropriate training, and maintaining openness in the approval and feedback processes. This indicates that curriculum flexibility for clinical training programs can support trainee competency in assessment during the COVID-19 pandemic while also assisting programs in meeting accreditation standards (Casline et al., 2021).

Material and Methods

A mixed-methods research design was used in this study. The first phase of the study used an analytical observational design with an online survey instrument provided to nurses. A total of 1036 nurses who worked at Lahore General Hospital, Lahore made up the study's population. This study was approved by Lahore General Hospital's Institutional Review Board and complies with the 1964 Helsinki Declaration and its subsequent revisions. All of the respondents' rights were respected, and consent in writing was obtained. It was explained to every respondent that participation was completely voluntary and that quitting at any time would not have an adverse influence on how well they were rated (Haapio & Viitaniemi, 2008; Pope et al., 2004).

Using a stratified random sampling approach, the study's samples were gathered in the first phase of quantitative research, taking into account the Krejcie and Morgan tables. In order to gather information regarding the training requirements for care during the pandemic season, the second phase of the research used structured interview information

sources chosen by purposive sample approach of the person in charge of services at Lahore General Hospital. Two experts validated the claims made in the online questionnaire-based research instrument.

Results and Discussion

Quantitative Analysis

Out of the 450 nurses who were given online questionnaires, 413 took part. The characteristics of the respondent—their age, gender, level of education, duration of employment, and the unit in which they are employed—are organized according to these factors.

Table 1
Characteristics of the Respondents

Characteristic	Sample (n=413)
Age (mean, SD)	38.2±8.6
Gender (n, %)	
Male	103 (24.9%)
Female	310 (75.1%)
Educational status (n, %)	
Nursing diploma	257 (62.2%)
Bachelor of Nursing	149 (36.1%)
Master of Nursing	7 (1.7%)
Duration of work (mean, SD)	14.8±8.7
Work unit (n, %)	
Emergency department	63 (15.3%)
Outpatient department	64 (15.5%)
Inpatient department	151 (36.5%)
Intensive care department	74 (17.9%)
Operating theatre department	19 (4.6%)
Cardiology center	28 (6.8%)
Cancer service department	14 (3.4%)

The age features are displayed in Table 1 with a mean age of 38.2 years (SD: 8.6). 75.1% of the respondents were female, their level of education was a diploma in nursing (62.2%), and their average length of service was 14.8 years (SD: 8.7). The largest percentage came from inpatient units (34.6%) according to the work unit.

Table 2
Nurse's self-assessment of self-competence

Competence	Sample (n=413)
Oxygenation needs (mean, SD)	4.2±0.7
Fluid and electrolyte need (mean, SD)	3.8±0.7
Administering drugs safely and according to procedures (mean, SD)	4.1±0.6
Physical examination competence (mean, SD)	3.9±0.6
Blood and transfusion management competence (mean, SD)	4.1±0.6
Competence in carrying out emergency actions in all age groups (mean, SD)	3.8±0.6
Conducting nursing consultations and collaboration with other health teams (mean, SD)	4±0.6
Effective communication (mean, SD)	4.1±0.6
Nursing ethic principle (mean, SD)	4.1±0.6
Preventing nosocomial infections (mean, SD)	4.0±0.5
Conducting data analysis and data interpretation (mean, SD)	3.7±0.6
Competence in creating a safe and comfortable environment (mean, SD)	4.1±0.6
Injury prevention competence (mean, SD)	4.1±0.6

The information on nurses' perceptions of their own competence is presented in Table 2, where the competence in carrying out emergency actions has the lowest mean (3.8 (SD: 0.6) and the competence in conducting data analysis and data interpretation has the highest mean (3.7 (SD: 0.6).

Table 3
Training model, learning media, implementation, and time of training

Training	Sample (n=413)
Training model (n, %)	
Face-to-face model	140 (33.9%)
Online model	78 (18.9%)
Blended learning	195 (47.2%)
Learning media (n, %)	
Visual media	20 (4.8%)
Audio media	2 (0.5%)
Audio-Visual media	391 (94.7%)
Training conducted (n, %)	
Internal	393 (95.2%)
External	20 (4.8%)
Training time (n, %)	
On job	58 (14%)
Off job	74 (17.9%)
Flexible	281 (68%)

Table 3 reveals that internal training implementation (95.2%), audio-visual media (94.7%), mixed training (47.2%), and flexible time training (68%), are the most desired training models.

Table 4
Training that nurses want to attend

Training's name	Sample (n=413)
Emergency training	69 (16.7%)
Medical and surgery training	80 (19.4%)
Intensive care training	107 (25.9%)
Anesthesia and operating theatre training	24 (5.8%)
Dialysis training	23 (5.6%)
Oncology training	20 (4.8%)
Cardiology training	19 (4.6%)
Infection control training	12 (2.9%)
Covid-19 care training	8 (1.9%)
Leadership training	15 (3.6%)
Effective communication	9 (2.2%)
Ophthalmology training	14 (3.4%)
Mother and child nursing	6 (1.4%)
Not answer	7 (1.7%)

Table 4 displays that 25.9% of respondents favored extensive instruction, whereas 1.7% did not respond.

Qualitative Analysis

The following themes provide an explanation of the outcomes of the eight participants (P) who oversee nursing services during structured interviews.

Implementation of nursing TNA

Since every care unit has distinct competences, it's important to map out the kinds of skills required. The analysis of training requirements is tailored to the necessary competencies. For instance, BTCLS, ALS, and basic life support emergency competency are required of nurses working in the emergency room. Planning for training requirements will be simpler as a result (P1, P2, P6, P7).

TNA Executor

The nurse is required to submit the TNA in accordance with their personal demands. According to their work units, nurses should be able to submit their training needs more easily through the media. This training should be primarily based online. The suggested training needs must be facilitated by the nurse manager (P2, P4, P6, P8).

TNA Implementation Time

"TNA is held at the conclusion of the year to facilitate the planning of training needs for the upcoming year. It has to do with managing nursing staff as well. When attending training, nurses might consider leaving their service responsibilities behind in order to concentrate on their studies (P2, P3, P5, P8).

Place of Training

"The training venue is designed to save time and make use of hospital resources, including teaching materials, tools, and trainer resources. (P1, P2, P3, P4).

Discussion

According to the findings, the respondents' mean age in this study was 38.2 years (SD: 8.6), falling between the ages of 23 and 60. Females make up the majority (75.1%). Within the range of 1 to 35 years, the average length of service is 14.8 years. Sixty-two percent of the responders have a nursing diploma. According to the installation, inpatient installs accounted for the largest percentage, 34.6%. The study (Jira et al., 2020) included 383 health workers, with a 55.1% male sex and an average age of 29 years in the 20–45 year range. However, different research results were obtained. The findings based on the respondent characteristics were found to be in line with the study conducted by Yousif et al. (2019), which comprised 29 respondents and discovered that the mean age was 34.8 and that 72.4 percent of the respondents were female. Nonetheless, the average time spent working was 5 years, with a range of 1 to 18 years. In their study, Wang et al. (2020) examined 246 nurses who were caring for patients with dementia. They discovered that 83.7% of the nurses were women, and that the greatest age range they saw was between 40 and 50 years old (27.2%).

Training is crucial because it helps businesses stay competitive in the market, promotes employee health and safety, opens doors for professional growth and personal development, helps retain employees, and helps management comply with legal requirements. It can increase output and profitability (Uma, 2013).

87.9% of people believe that training supports their work. This demonstrates that nurses would rather participate in training than in a classroom. The study's (Abuelela et al., 2019) results demonstrated that nurses who had not previously received training on nursing professional values and those who had received the program had the highest scores among those who had not received it. Access to ongoing professional development can be feasible, reasonable, and pertinent, according to Mlambo et al. (2021).

Training is implemented in a way that takes into account the competency requirements that nurses must meet (Pedaste et al. 2015; Schnotz & Bannert, 2003). To

determine the nurse's level of competency, the unit manager performs the nurse competency evaluation. The aforementioned training program significantly enhances nurses' ability to function in public health settings and prepares them for challenging clinical situations (Kiik et al., 2022).

When it came to meeting fluid and electrolyte needs, performing physical examinations, responding to emergencies, and analyzing and interpreting data, the nurse's assessment of her own competence scored the lowest on average (Graneheim & Lundman, 2004; Cronenwett et al., 2007). According to the study by (Figueiredo et al., 2021) it is crucial to address key issues related to nurses' self-perceptions of their skill in evaluation and intervention during nursing education across the board in order to equip nurses with the knowledge of the competencies required for the best possible care.

Mixed training was the most frequently anticipated training model, according to the data (47.2%). Mixed learning is the process of combining online and in-person training (Nasution et al., 2021). In terms of learning outcomes and interest levels, blended learning is better than fully online learning, according to research by Dziuban et al. (2004). Moreover, Dziuban et al. (2004) found that blended learning is better than in-person education.

Conclusion

One type of activity that might raise a nurse's competency is training. To address the requirement to raise nurses' competence, a training needs assessment is required. Every aspect of TNA is completed, including the requirement for learning resources and models. According to this study, nurses favored combined learning, audio-visual materials, and flexible training schedules

Recommendations

In order to undertake training activities in accordance with the pandemic's scenario and conditions as well as the demands of nurses, we advise creating guidelines for analyzing the need for training, particularly during the pandemic disease season. A stronger commitment from management to human resource development and training, emphasizing the need of suitable training for the hospital's mission and delivering it with the resources at hand.

References

- Abdullah, W. (2018). Model blended learning dalam meningkatkan efektifitas pembelajaran. *Fikrotuna*, 7(1), 855-866.
- Alnair, N. M. A., Malik, E. M., Ahmed, M. E., & Abu, I. I. M. (2019). Training Needs Assessment for Nurses in Sennar State, Sudan: Cross Sectional Study (1). *Science Journal of Public Health*, 7(4), 104-114.
- Barbazette, J. (2006). *Training needs assessment: Methods, tools, and techniques*. John Wiley & Sons; 20(1).
- Casline, E., Tawfik, S. H., Brodar, K. E., Patel, Z. S., & Tarlow, N. (2021). Considerations for assessment training competencies in health service psychology programs in the age of COVID-19. *Training and education in professional psychology*, 15(4), 267.
- Cronenwett, L., Sherwood, G., Barnsteiner, J., Disch, J., Johnson, J., Mitchell, P., & Warren, J. (2007). Quality and safety education for nurses. *Nursing outlook*, 55(3), 122-131.
- Dziuban, C. D., Hartman, J. L., & Moskal, P. D. (2004). Blended learning. *Educause Center for Applied Research Bulletin*, 2004(7), 1-44.
- Febriani, & Yusuarsono. (2018). Training Need Analysis (TNA) Model for Family Planning Field Officers (PLKB) at BKKBN Bengkulu Province. *Seminar Nasional Ilmu Sosial Dan Teknologi*, 1, 61-66.
- Figueiredo, M. H., Ferreira, M. M., Silva, M. L. da, & Guedes, V. S. (2021). Self-perception of nurses' competence in family assessment and intervention. *Invest. Educ. Enferm.*, 39(3), 1-12.
- Goodwin, V. T., Meyer, D., Martin, E., Anne, B. S., & Pat, C. M. (2020). Recommendations for Improving National Nurse Preparedness for Pandemic Response : Early Lessons from COVID-19. In *Center For Health Security John Hopkins. Jhon Hopkins University*.
- Graneheim, U. H., & Lundman, B. (2004). Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. *Nurse education today*, 24(2), 105-112. <https://doi.org/10.1016/j.nedt.2003.10.001>
- Haapio, A., & Viitaniemi, P. (2008). A critical review of building environmental assessment tools. *Environmental impact assessment review*, 28(7), 469-482. <https://doi.org/10.1016/j.eiar.2008.01.002>
- Jira, L., Weyessa, N., Mulatu, S., & Bogale, T. (2020). Training Need Assessment among Health Care Providers in Public Health Facilities of Benishangul Regional State, North. *Journal of Nursing and Health Science*, 9(3), 43-50.
- Kiik, S. M., Nuwa, M. S., Betan, Y., & Riti, I. F. (2022). Improving nursing student self-confidence and competence through integrated public health care training. *Kontakt*, 24(1), 43-47.
- Ludwikowska, K. (2019). The effectiveness of training needs analysis and its relation to employee efficiency. *Researchgate*, December 2018, 179-193.

- Mahmud, K. T., Saira Wahid, I., & Arif, I. (2019). Impact of training needs assessment on the performance of employees: Evidence from Bangladesh. *Cogent Social Sciences*, 5(1), 1705627.
- Mlambo, M., Silén, C., & McGrath, C. (2021). Lifelong learning and nurses' continuing professional development, a metasynthesis of the literature. *BMC nursing*, 20(1), 1-13.
- Mohamadi, S., Borhani, F., Nikravan-Mofrad, M., Abbaszadeh, A., Monajemi, F., & Moghaddam, H. R. (2019). Assessing of the learning needs of nurses in medical and surgical and emergency wards: nursing continuing education requirements. *EurAsian Journal of BioSciences*, 13(2), 135-143.
- Mohanraj, D., & Nadu, T. (2017). Effect of Training and Development Programmes on Self-Efficacy of Banking Professionals in Chennai City. *International Journal of Management*, 8(5), 31-43.
- Nasution, A. K. P., Surbakti, A. H., Zakaria, R., Wahyuningsih, S. K., & Daulay, L. A. (2021). Face to face learning vs blended learning vs online learning (student perception of learning). In *Journal of Physics: Conference Series (Vol. 1783, No. 1, p. 012112)*. IOP Publishing.
- Pedaste, M., Mäeots, M., Siiman, L. A., De Jong, T., Van Riesen, S. A., Kamp, E. T., ... & Tsourlidaki, E. (2015). Phases of inquiry-based learning: Definitions and the inquiry cycle. *Educational research review*, 14, 47-61.
- Pereira, M. R. (2020). Nursing care, relevance in the context of the COVID-19 pandemic. *Enfermería (Montevideo)*, 9(1), 5-6.
- Pilcher, J. (2016). Learning Needs Assessment. *Journal for Nurses in Professional Development*, 32(4), 185-191.
- Pope, J., Annandale, D., & Morrison-Saunders, A. (2004). Conceptualizing sustainability assessment. *Environmental impact assessment review*, 24(6), 595-616.
- Purnell, M. (2020). Findings from a training need analysis survey to support health professionals across the research lifecycle. *Health Information and Libraries Journal*, 37(2), 118-127.
- Sarre, S., Maben, J., Aldus, C., Schneider, J., Wharrad, H., Nicholson, C., & Arthur, A. (2018). The challenges of training, support and assessment of healthcare support workers: A qualitative study of experiences in three English acute hospitals. *International journal of nursing studies*, 79, 145-153.
- Schnotz, W., & Bannert, M. (2003). Construction and interference in learning from multiple representation. *Learning and instruction*, 13(2), 141-156.
- Uma, S. N. (2013). A Study on Training Importance for Employees of their Successful Performance in the Organization. *International Journal of Science and Research*, 2(11), 137-140.
- Wang, Y., Liu, Y., Tian, J., Jing, M., & Zhang, K. (2020). Analysis on nursing competence and training needs of dementia caregivers in long-term care institutions. *International journal of nursing sciences*, 7(2), 198-205. <https://doi.org/10.1016/j.ijnss.2020.03.003>
- Yousif, A. K., Ahmed, O. Y., & Osman, W. N. (2019). Training Needs Assessment of Academic Teaching Staff in Faculty of Dentistry, University of Gezira, Sudan 2018. *Education in Medicine Journal*, 11(1), 31-41.