RESEARCH PAPER

Influence of Patient Safety Culture Knowledge Training Program on Nurses' Satisfaction and their Commitment in Hafar Albatin General Hospital in the Kingdom of Saudi Arabia

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ABSTRACT

Background: A positive Patient Safety Culture creates an environment in which nurses are encouraged to report errors, communicate concerns, and participate in safety initiatives without fear of blame. Such a culture promotes psychological safety, strengthens teamwork, and enhances job satisfaction and organizational commitment.

Aim: This study aimed to evaluate the impact of Patient Safety Culture knowledge on nurses' satisfaction and organizational commitment at Hafar Albatin General Hospital.

Methods: A quasi-experimental study was conducted among staff nurses working in male and female intensive care units at Hafar Albatin General Hospital (n = 114). Data were collected using four instruments: the Patient Safety Culture Knowledge Questionnaire, the Hospital Survey on Patient Safety Culture, the Nurses' Satisfaction Scale, and the Organizational Commitment Questionnaire. Measurements were obtained before the intervention, immediately after the training program, and three months later.

Results: Significant improvements were observed across all study variables following the training program. The proportion of nurses with a high level of Patient Safety Culture knowledge increased from baseline to 47.4% immediately after the intervention and further rose to 73.7% after three months. Similarly, high Patient Safety Culture perception scores increased to 49.1% post-intervention and reached 69.3% at follow-up. Nurses' satisfaction and organizational commitment also improved, with high-level scores increasing to 75.5% immediately after training and to 79.8% three months later, indicating sustained positive outcomes.

Conclusion: The training program had a substantial and lasting positive effect on nurses' knowledge of Patient Safety Culture, perceptions of safety practices, job satisfaction, and organizational commitment. These findings highlight the importance of continuous patient safety education in fostering a supportive work environment and improving nursing outcomes.

Keywords: Commitment, Nurses, Patient Safety Culture Knowledge, Satisfaction, Training Program.

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INTRODUCTION

Patient safety is defined as the absence of preventable harm during healthcare delivery and the reduction of risks associated with healthcare to an acceptable minimum. It remains a growing global public health concern and a fundamental indicator of healthcare quality (Janghorban, Moghri, Ghavami, Raesi, & Tabatabaee, 2025). A positive Patient Safety Culture (PSC) enables nurses to report errors, raise concerns, and participate in safety initiatives without fear of blame or retribution. Such a culture is characterized by open communication, mutual respect, continuous learning, teamwork, leadership support, and non-punitive responses to errors, all of which contribute to safer patient care and improved organizational performance (Alrasheeday et al., 2025; Alsobou et al., 2025).

Leadership commitment plays a central role in establishing and sustaining PSC through prioritizing safety initiatives, allocating resources, and modeling safe practices. In addition, organizational learning encourages healthcare professionals to view errors as opportunities for improvement rather than individual failures, thereby strengthening resilience and adaptability in complex healthcare environments (Tadia, Kotwal, & Jalaunia,

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2025; Vikan et al., 2025). A strong safety culture also contributes positively to nurses' job satisfaction by promoting psychological safety, reducing stress and burnout, and fostering a supportive work environment where nurses feel valued and motivated (Al-Surimi, Almuhayshir, Ghailan, & Shaheen, 2022; Bai & Bai, 2024).

Nurses' satisfaction is influenced by several factors, including work environment, professional relationships, recognition, compensation, workload, and opportunities for professional development (Cubelo, Al Jabri, Jokiniemi, & Turunen, 2024; Yesilbas & Kantek, 2024; Chang, Wang, & Lee, 2025). Higher satisfaction levels enhance nurses' engagement, retention, and quality of care, ultimately contributing to improved patient outcomes (Zhang et al., 2025).

Similarly, nurse commitment reflects emotional, psychological, and professional attachment to the organization and profession and is associated with higher performance, ethical practice, patient safety, and teamwork (Fantahun, Dellie, Worku, & Debie, 2023; Fukuzaki, Iwata, Ooba, Takeda, & Inoue, 2021). Commitment is strengthened by supportive leadership, favorable working conditions, recognition, and opportunities for career advancement, whereas excessive workload and poor management can reduce commitment and increase turnover intentions (Kaldal et al., 2024; Gavya & Subashini, 2024; Kurtović et al., 2024).

Patient safety culture is particularly important because healthcare-related harm remains a major challenge worldwide. Medical errors continue to be a leading cause of morbidity and mortality, and unsafe patient care is recognized as one of the leading causes of death and disability globally (Ayanaw et al., 2023). Assessing PSC enables healthcare organizations to identify weaknesses, promote non-punitive approaches to error reporting, and implement strategies that improve patient outcomes and healthcare quality.

However, the relationship between PSC knowledge, nurses' satisfaction, and commitment remains insufficiently explored. Therefore, this study aimed to evaluate the impact of knowledge of PSC on nurses' satisfaction and commitment at Hafar Albatin General Hospital. It was hypothesized that PSC knowledge, nurses' satisfaction, and nurses' commitment would significantly improve following implementation of a PSC training program.

METHODS

Research Design

A quasi-experimental one-group pretest–posttest design was utilized to evaluate the impact of the PSC training program on nurses' knowledge, satisfaction, and organizational commitment.

Setting

The study was conducted in the male and female Intensive Care Units (ICUs) at Hafar Albatin General Hospital, Saudi Arabia.

Participants

A convenience sample of all available staff nurses working in the selected ICUs was recruited. A total of 114 nurses participated in the study. Eligible nurses had at least one year of clinical experience, were directly involved in patient care, and agreed to participate in the study.

Instruments

Tool I: Patient Safety Culture Knowledge Questionnaire

The PSC Knowledge Questionnaire was developed by the researcher, based on an extensive literature review, to assess nurses' knowledge of PSC. The questionnaire included multiple-choice and true/false questions covering key concepts related to PSC.

Scoring System

Scores were converted into percentages and categorized as low (<50%), moderate (50–75%), and high (>75%).

Tool II: Hospital Survey on Patient Safety Culture (HSPSC)

The Hospital Survey on Patient Safety Culture (HSPSC), developed by the Agency for Healthcare Research and Quality (2018), was used to assess nurses' perceptions of PSC. The instrument consists of 42 items distributed across 12 dimensions, including teamwork within units, supervisor expectations and actions promoting patient safety, organizational learning, management support, communication openness, staffing, handoffs and transitions, and non-punitive response to errors. Responses were rated using a five-point Likert scale ranging from strongly disagree (1) to strongly agree (5). For selected domains, responses ranged from never (1) to always (5).

Scoring System

Total scores were categorized into low (<50%), moderate (50–75%), and high (>75%) levels.

Tool III: Nurses' Satisfaction Scale

The Nurses' Satisfaction Scale developed by Da Silva João et al. (2017) was used to assess nurses' satisfaction with work-related aspects, including leadership, organization and resources, professional recognition, co-workers, remuneration, and staffing. The scale consists of 37 items distributed across six domains. Responses were measured using a five-point Likert scale ranging from "not at all" (1) to "extremely" (5).

Scoring System

Total scores were categorized as low (<50%), moderate (50–75%), and high (>75%).

Tool IV: Organizational Commitment Questionnaire

The Organizational Commitment Questionnaire was originally developed by Ghosh (2014) and modified by the

researcher based on a review of relevant literature. The instrument consists of 29 items measuring affective commitment, normative commitment, continuance commitment, organizational identification, and organizational internalization. Responses were rated on a five-point Likert scale ranging from strongly disagree (1) to strongly agree (5). Reverse scoring was applied to negatively worded items.

Scoring System

Scores were categorized into low (<60%), moderate (60–75%), and high (>75%) organizational commitment levels. Higher scores indicated greater commitment to the organization.

Validity and Reliability

Face and content validity of the study instruments were established through evaluation by a panel of five experts in the field. Necessary modifications were made based on their recommendations. Reliability was assessed using Cronbach's alpha coefficient through SPSS version 23. The reliability coefficients were 0.790 for the PSC Knowledge Questionnaire, 0.807 for the HSPSC, 0.811 for the Nurses' Satisfaction Scale, and 0.907 for the Organizational Commitment Questionnaire, indicating satisfactory internal consistency.

Pilot Study

A pilot study was conducted with 10% of the study sample to assess the clarity, applicability, and feasibility of the instruments and to estimate the time required to complete the questionnaire. Necessary modifications were made accordingly. Participants involved in the pilot study were excluded from the final sample.

Data Collection and Analysis Procedure

After obtaining the required administrative approvals, baseline data were collected from participating nurses during morning, evening, and night shifts according to their availability. The PSC Knowledge Questionnaire, HSPSC, Nurses' Satisfaction Scale, and Organizational Commitment Questionnaire were administered before implementation of the training program to establish baseline measurements. The same instruments were re-administered immediately after completion of the program and again three months later to evaluate its effectiveness and sustainability.

The PSC training program was developed by the researcher based on baseline assessment findings and evidence from the literature. The program was delivered over four weeks and consisted of four sessions, each lasting approximately two hours. Participants were divided into three groups, and sessions were conducted during morning and evening shifts three days per week. The first session introduced PSC, including its definition, importance, benefits, and requirements. The second session focused on the components, elements, and implementation steps of PSC.

The third session involved practical application through case scenarios and role-playing activities. The final session was dedicated to program evaluation and participant feedback. Program implementation and data collection were conducted between April and September 2024. Data were coded, entered, and analyzed using Statistical Package for Social Science (SPSS) version 23 or higher.

Ethical Considerations

Ethical approval was obtained from the Research Ethics Committee of the Faculty of Nursing, Mansoura University. Official permission to conduct the study was obtained from Hafar Albatin General Hospital. Participation was voluntary, and informed consent was obtained from all eligible nurses before data collection. Participants were informed about the purpose of the study, and confidentiality and anonymity were assured. Nurses were also informed of their right to withdraw from the study at any time without penalty.

RESULTS

Sociodemographic of the Participants

Table (1): Illustrates the personal characteristics of the studied nurses. The table showed that the mean age score of head nurses was 34.08 ± 6.33; more than half of them (54.4%) were in the age group from 35 < 40years; nearly two-thirds of them (64%) were female. Regarding educational qualifications, nearly two-thirds of them (64.1%) hold a bachelor's degree in nursing, and more than half of them (62.2%) were working in an intensive care unit. Regarding marital status, more than half of them (59.6%) were married.

Table (1): Personal characteristics of the studied nurses (n= 114)

Personal characteristics	No.	%
Age		
▪ **< 25**	14	12.3
▪ **25 < 30**	14	12.3
▪ **30 < 35**	19	16.6
▪ **35 < 40**	62	54.4
▪ **≥ 40**	5	4.4
Mean ± SD	**34.08 ± 6.33**	
Gender		
▪ **Male**	41	36
▪ **Female**	73	64

Educational qualification		
▪ **Diploma of nursing**	1	1.3
▪ **Technical Institute of nursing**	27	34.6
▪ **Bachelor's degree of nursing**	50	64.1
Units		
▪ **Intensive care unit**	71	62.2
▪ **Critical care unit**	43	37.8
Years of experience		
▪ **1 < 5**	3	2.6
▪ **5 - 10**	32	20.2
▪ **> 10**	88	77.2
Mean ± SD	**9.92 ± 0.49**	
Marital Status		
▪ **Single**	41	36
▪ **Married**	68	59.6
▪ **Divorced**	1	0.9
▪ **widow**	4	3.5

PRESENTING THE RESULTS

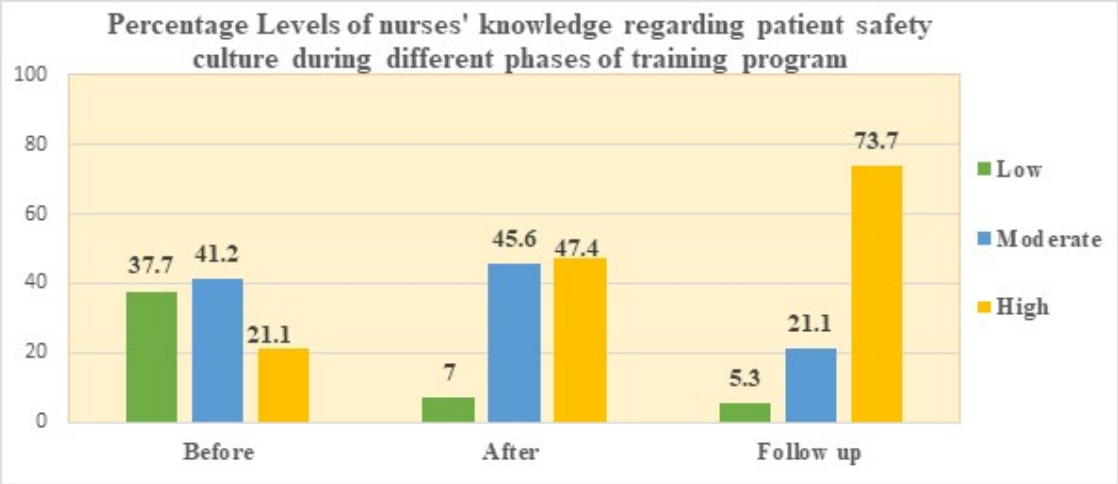

Figure (1): Percentage levels of nurses' knowledge regarding patient safety culture during different phases of the training program (n=114)

Figure (1): Illustrates levels of nurses' knowledge regarding PSC during different phases of the training program. There are improvements between pre-test and measurement after the training program, as the percentage of high level reached (47.4%), while the improvement rate increased in the post-test of the high level after three months to reach (73.7%). It was noticed that there were highly statistically significant differences regarding nurses' knowledge regarding PSC during different phases of the training program at ($p \leq 0.01$).

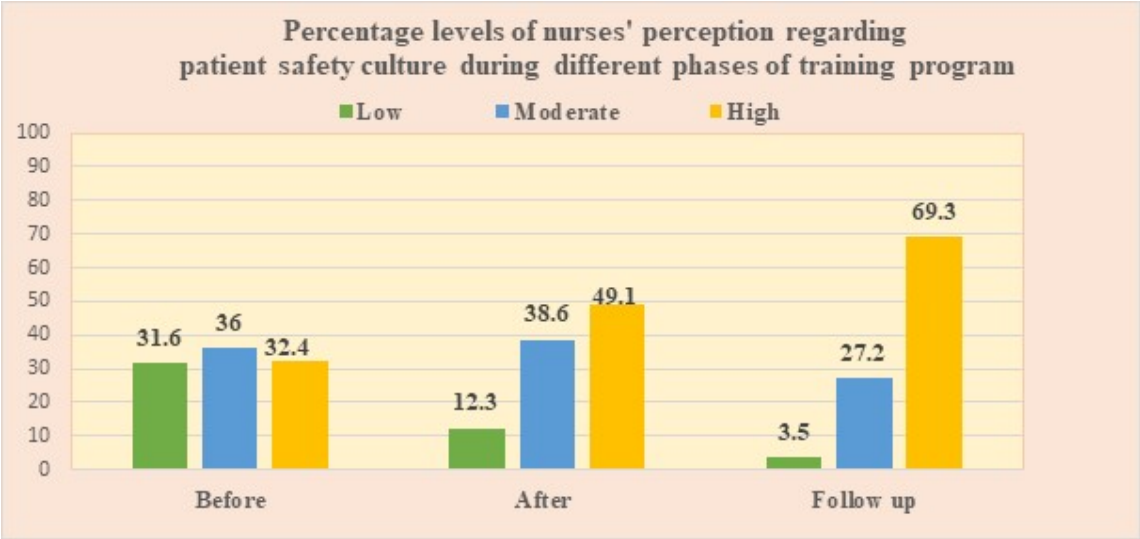

Figure (2): Levels of nurses' perception regarding patient safety culture during different phases of the training program (n=114)

Figure (2): Illustrates levels of nurses' perception regarding PSC during different phases of the training program. There are improvements between pre-test and measurement after the training program, as the percentage of high level reached (49.1%), while the improvement rate increased in the post-test of the high level after three months to reach (69.3%). It was noticed that there were statistically significant differences regarding nurses' perception regarding PSC during different phases of the training program at ($p \leq 0.05$), except in the pre-test.

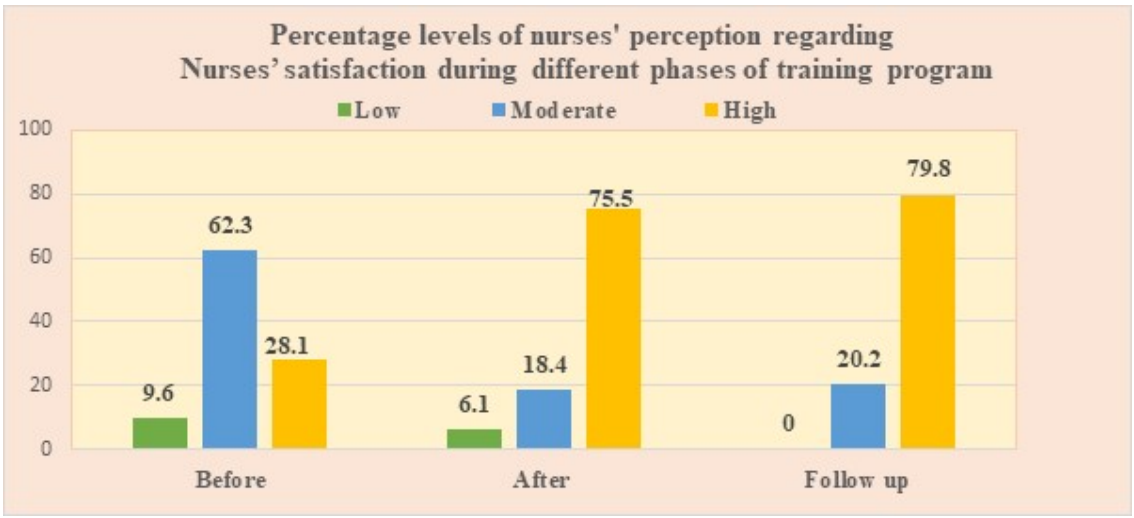

Figure (3): Levels of nurses' perception regarding nurses' satisfaction during different phases of the training program (n=114)

Figure (3): Illustrates levels of nurses' perception regarding nurses' satisfaction during different phases of the training program. There are improvements between pre-test and measurement after the training program, as the percentage of high level reached (75.5%) of them, while the improvement rate increased slightly in the post-test of the high level after three months to reach (79.8%). It was noticed that there were statistically significant differences regarding nurses' perception regarding nurses' satisfaction during different phases of the training program at ($p \leq 0.05$).

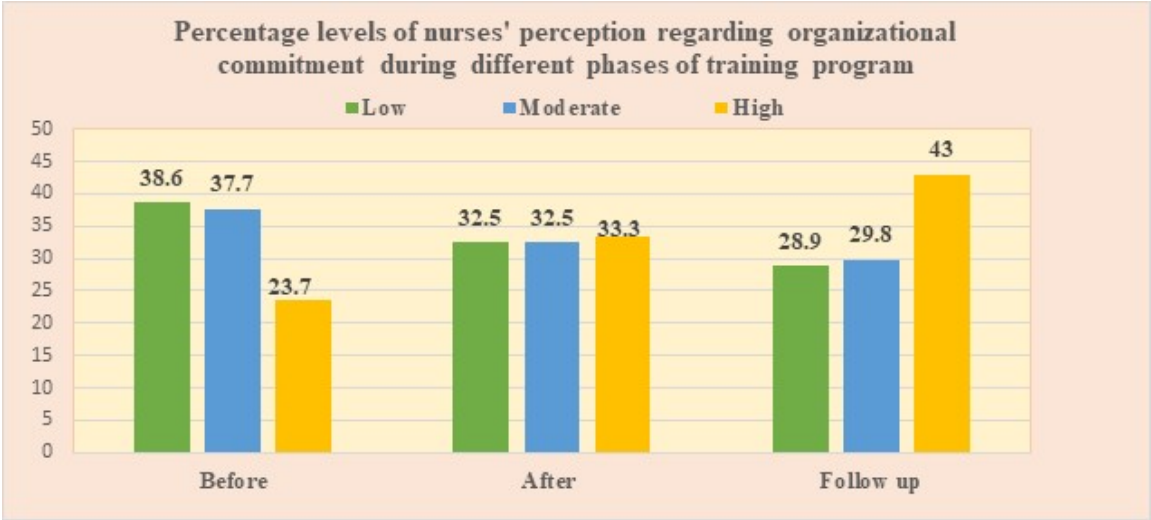

Figure (4): Levels of nurses' perception regarding organizational commitment during different phases of the training program (n=114)

Figure (4): Illustrates levels of nurses' perception regarding organizational commitment during different phases of the training program. There is a slight improvement between pre-test and measurement after the training program, as the percentage of high level reached (29.8%), while the improvement rate increased in the post-test of the high level after three months to reach (43%). It was noticed that there were statistically significant differences regarding nurses' perception of organizational commitment during different phases of the training program at ($p \leq 0.05$).

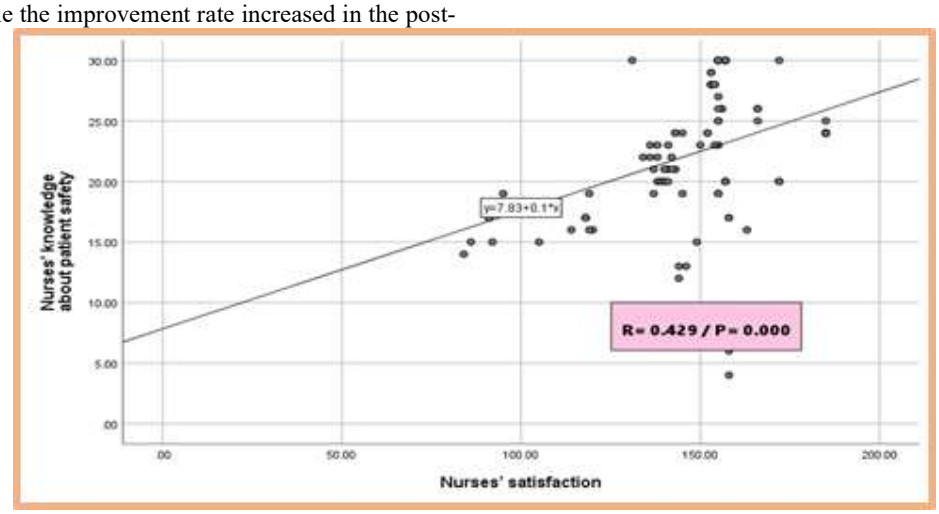

Figure (5): Correlation between nurses' knowledge about patient safety culture, nurses' satisfaction after applying the training program at Hafar Albatin General Hospital, Saudi Arabia

Figure (5): Presents the correlation between nurses' knowledge about PSC, nurses' satisfaction after applying the training program at Hafar Albatin General Hospital, Saudi Arabia. There was a highly statistically significant correlation between nurses' knowledge about PSC and nurses' satisfaction after applying the training program (R = 0.429) and (P-value < 0.01).

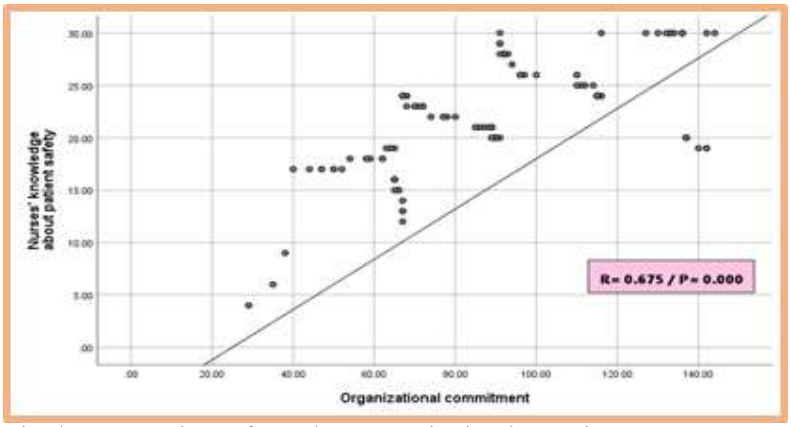

Figure (6): Correlation between patient safety culture, organizational commitment among nurses after applying the training program at Hafar Albatin General Hospital, Saudi Arabia.

Figure (6): Presents the correlation between PSC, organizational commitment among nurses after applying the training program at Hafar Albatin General Hospital, Saudi Arabia. There was a highly statistically significant correlation between PSC and organizational commitment after applying the training program (R = 0.675) and (P-value < 0.01).

DISCUSSION

Training programs on PSC provide nurses with knowledge of safety principles, error prevention, and error reporting. Structured training provides nurses with knowledge of hazards, safety regulations, and ways of reducing adverse occurrences that allow them to give safer and more efficient care. Knowledge increases confidence and competence in challenging therapeutic situations that lead to a positive behavior change. Studies suggest that focused development programs of knowledge promote safety-related decision-making and best practices that improve healthcare delivery (Zaitoun, Said, & de Tantillo, 2023).

Increased knowledge of patient safety directly and indirectly improves the job satisfaction of nurses. Confident nurses dealing with safety issues report less stress and frustration, leading to higher professional satisfaction. Training programs that provide practical tools, supportive feedback, and opportunities to develop skills increase staff satisfaction and show the organization's commitment to their well-being. Nurses also report feeling safer and more responsive in their work environments, which boosts morale and lowers turnover rates. Thus, PSC knowledge programs not only improve technical skills but also help create a more satisfying and stimulating workplace (Albacar-Riobóo, Coelho, Pinho, & Ferré-Grau, 2023).

The development of knowledge and job satisfaction reflects the emotional attachment, loyalty, and willingness of nurses to stay in their roles. Nurses' affective commitment and alignment with organizational goals are bolstered when they perceive their employer as supporting professional development and patient safety. The commitment is further enhanced by the engagement, productivity, and motivation of satisfied nurses to ensure safety standards. Patient safety training, therefore, establishes a positive cycle that links knowledge acquisition with increased satisfaction and organizational commitment, ultimately benefiting nurses and patient care (Ghallab et al., 2024).

Thus, this study investigated the effect of patient safety cultural knowledge training on nurses' satisfaction and commitment at Hafar Albatin General Hospital in Saudi Arabia . The present findings reflect nurses' awareness of PSC during the training. The high-level post-test after three months showed an improved rate compared with the pre-test. During several training phases, nurses' knowledge of PSC was highly statistically significant. This could be explained by the structured and evidence-based teaching material of the seminars. Patient safety culture training helps nurses understand error reporting, teamwork, communication openness, and a non-punitive error response. The cognitive awareness could have been improved with new guidelines and standardized methods.

Also, interactive teaching approaches like group discussion, case studies, simulation, and clinical scenarios could have contributed to this development. Adult learning theory indicates that nurses learn better when they actively participate. Agbar, Zhang, Wu, & Mustafa (2023) conducted a systematic review and meta-analysis of patient safety education interventions on healthcare professionals' PSC. They found that structured patient safety education significantly improved healthcare professionals' knowledge and perceptions of safety culture. Their findings support the outcome of the present study, which showed that nurses' knowledge improved after training, especially in the post-test period. In a scoping review of patient safety training programs for healthcare professionals, Amaral, Sequeira, Albacar-Riobóo, Coelho, Pinho, & Ferré-Grau (2023) found that tailored training interventions consistently improved the participants' knowledge and skills of PSC.

Existing data indicate that the training program increased the expertise of nurses over time. Alsabri et al. (2022), who studied the effect of teamwork and communication training interventions on safety culture in the emergency

department, found that structured training improved patient safety knowledge and practice. These findings support the current findings that the training program improved nurses' safety knowledge throughout the program phases. The current results are about the perceptions of the PSC of nurses during their training. The pre-test and the post-test after the training program improved, and the high-level post-test improved after three months.

The study found significant differences in nurses' perceptions of PSC across training phases ($p \leq 0.05$), except for the pre-test. Nursing perceptions of PSC may have improved due to increased understanding of safety climate in healthcare organizations. Education is generally effective in dispelling myths and improving attitudes to reporting errors and teamwork . Training can also increase nurses' enabling and professional responsibility. Safety competence improves nurses' work environment perceptions, especially communication openness and collaboration . Training sessions concerning non-punitive incorrect solutions may also reduce blame . Nurses better see organizational safety culture when they perceive mistakes as opportunities for system improvement rather than punishment.

Agbar, Zhang, Wu, & Mustafa (2023) also agreed with the current findings, reporting that structured patient safety education programs significantly improved the knowledge and attitudes of healthcare professionals towards PSC. Their detailed review and meta-analysis confirmed that the post-training tests contributed to significant gains in safety knowledge, supporting current results of statistically significant improvements. Amaral, Sequeira, Albacar-Riobóo, Coelho, Pinho, & Ferré-Grau (2023) also mentioned that well-planned patient safety training programs improved the nurses' understanding of principles and practices of patient safety. The study found that knowledge retention was highest in follow-up assessments weeks after program completion, supporting current findings of improved post-test scores at three months.

Also, Zhang, Liao, & Luo (2022) confirmed that safety knowledge and awareness among operating room nurses increased significantly after training. The results of the study indicated that the knowledge scores of the nurses significantly increased after the nurses took part in the program, supporting the finding of the current study that progress was achieved over the phases of the training program.

Schulman (2020) examined organizational structure and safety culture and proposed that knowledge alone may be insufficient for maintaining improvements in safety culture without organizational support. This does not contradict the current findings regarding immediate knowledge gains after training, but emphasizes the need for institutional reinforcement to achieve long-term benefits. The current study revealed a statistically significant increase in head nurses' satisfaction ratings throughout the training program. The results show that the training program increased head nurses' awareness and recognition of job satisfaction, and this was maintained in follow-up assessments. This could be due to several reasons.

Firstly, the training program likely improved head nurses' knowledge and skills in supporting and recognizing nursing personnel, thus enhancing their perception of nurses' satisfaction. Secondly, head nurses may have become more aware of the role of work satisfaction in motivating and retaining staff, leading them to prioritize staff needs . Thirdly, structural elements including interactive sessions, feedback, and practical examples helped to translate theoretical knowledge into real-world situations, which might have contributed to the improvement.

Al-Surimi, Almuhayshir, Ghailan, & Shaheen (2022) investigated the effect of PSC on job satisfaction and intention to leave among Middle Eastern healthcare workers and found that nurse job satisfaction was directly increased by improvements in safety culture. The current study showed that head nurses' attitudes improved significantly after the training program. Structured activities such as safety or training programs improve nurses' knowledge of their needs and satisfaction. Hanifi, Yazdanshenas, Namadian, & Motamed (2018) reported that the patient safety educational program improved nurses' PSC and related indicators.

Their study supported the current findings by showing that educational programs improve knowledge and evaluative views of staff satisfaction, boosting head nurses' work satisfaction. Kagan, Porat, & Barnoy (2019) examined the quality and safety culture in general hospitals and its impact on patient satisfaction from the perspectives of patients, physicians, and nurses and concluded that safety culture enhancements led to increased nurse job satisfaction.

The current study supports the above findings and highlights the broader impact of a positive work environment on worker happiness, suggesting that improved perceptions of head nurses are likely a reflection of the improved workplace culture and satisfaction. The study noted statistically significant improvement in head nurses' perception of nurses' organizational commitment across training phases. Perceived organizational commitment, for example, significantly increased following the program compared to pre-training. This improvement persisted during the follow-up phase, demonstrating that the training program improved head nurses' assessments of nurses' organizational commitment. The training content improves leadership, communication, and supportive work practises, which create organizational commitment in nursing personnel.

This result was in favor of Ghallab et al. (2024), who reported that a patient safety training program increased nursing staff compliance with safety goals and safety culture. Structured training interventions can have a positive impact on nurses' behaviors and perceptions in the workplace. This study was similar to Yanti et al. (2020),

which revealed that PSC training in inpatient units significantly increased safety culture levels after the program implementation; that means educational programs could improve professional attitudes and organizational climate.

This study was in line with Ali et al. The authentic leadership educational program for head nurses statistically increased the organizational commitment of staff nurses (ElGamal et al., 2024). Conflict-management training programs increased nurses' organizational commitment immediately and over time, indicating a lasting effect (ElGamal et al., 2023). After implementing the program, talent-management educational programs significantly increased all types of organizational commitment among nurse managers (Hamed et al., 2022).

This improvement can be explained by the training, which increased nurses' awareness, motivation, and organizational belonging. Training programs enhance professional development, communication, and organizational alignment, which can boost commitment. In addition, the rise in the commitment scores at the follow-up phase suggests that the program was both immediate and sustained, indicating nurses' capacity to apply the knowledge gained in their daily activities and develop their attachment to the organization over time. The findings emphasize the significance of ongoing training and development to foster organizational commitment among nursing personnel.

The results of this study are consistent with the findings of Asaad et al.(2022), who found that training in talent management resulted in higher organizational commitment among nurse managers. The current study and earlier research concur that well-designed educational programs increase nursing staff organizational commitment. The findings demonstrated that organizational commitment increased from pre-training to post-training and follow-up. Nurses' commitment increased after the program and remained at a higher level until follow-up. The differences between the phases of the training program were statistically significant, which means that the program had a positive impact on nurses' organizational commitment.

The improvement might be explained by the impact of the training program on nurses' knowledge, skills, and professional awareness. The program might have increased motivation, responsibility, and a sense of belonging in the organization through opportunities for learning, growth, and involvement, which in turn might have increased organizational commitment. The training program had a positive impact on nurses' organizational commitment, which is in line with recent studies finding a positive relationship between organizational interventions and commitment.

Habib Mohamed et al. (2023) found that the implementation of an autonomous educational program for staff nurses improved their organizational commitment significantly, meaning that empowerment and workplace education can also improve nurses' organizational commitment. Parashakti et al. (2023) found that organizational learning improved nurses' performance through organizational commitment and citizenship behavior with leadership as a moderator.

This study supports the concept that effective learning environments and leadership interventions can motivate and engage nurses, thereby enhancing commitment. The resulting findings also support previous studies on professional dedication and its improvement. Amlaku et al. (2025) found that organizational and work-related factors influenced Ethiopian public hospital nurses' professional dedication. Jafari Golestan et al. (2025) found that positive thinking skills training improved nurses' job commitment post-training and thereafter. These findings support the current conclusions that psychological skills, empowerment and professional development treatments can improve nurses' organizational and professional commitment. The study found a very statistically significant association between PSC, nurses' satisfaction and organizational commitment post-training.

Training nurses on PSC improves their confidence, competence, and understanding of safe practices, thus enhancing their professional happiness. Increased satisfaction improves motivation, engagement and emotional attachment to the organization, which improves organizational commitment (Yu et al., 2023). They proposed that a supportive and safe work environment is a prerequisite of professional commitment.

This finding also supports Al Surimi (2022), who found that higher PSC was associated with higher job satisfaction among healthcare workers. The authors suggested that safety culture interventions can improve the happiness of nurses' jobs. Ghallab et al., 2024 found that structured training programs that improved PSC and related outcomes such as nurse satisfaction can improve safety culture and workforce morale. However, Öztürkci & Filiz (2023) found a strong association between PSC and organizational commitment ($p \leq 0.01$).

CONCLUSION

Based on the study findings, it was concluded that the implemented training program had a meaningful and lasting positive impact on nurses across all measured dimensions. Nurses' knowledge regarding PSC showed the most notable improvement, rising from baseline levels to immediately post-training and further increasing after three months, reflecting strong knowledge retention and application. Similarly, nurses' perception of PSC improved progressively at the three-month follow-up, while job satisfaction, which began at a relatively higher baseline, continued to grow in the post-program period.

RECOMMENDATIONS

For Nurses

- Actively engage in patient safety training programs and apply acquired knowledge consistently in daily clinical practice.

- Embrace a culture of open reporting of near-misses and adverse events without fear of blame, to support continuous safety improvement.

For Head Nurses

- Integrate PSC topics into routine nursing unit meetings and briefings to sustain knowledge gained from training.
- Monitor nurses' compliance with patient safety protocols and provide constructive, timely feedback to reinforce best practices.

Fund

This research did not receive any funds from any organization or any other resources.

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Conflict of interest

The authors declare no conflict of interest in the preparation of this study.

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