

The Effect of Positive Thinking Skills Training on Job Commitment of Nurses Working in Selected Military Hospitals

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Abstract

Background: One of the vital factors for health system employees, especially nurses, is job commitment, which has its roots in the positive psychology movement.

Aim: The present study was conducted with aim to determine the effect of positive thinking skills training on job commitment of nurses working in the selected military hospitals in Tabriz.

Method: This quasi-experimental study with pre and post-test design was conducted on 50 nurses working in the selected hospitals of Aja in Tabriz, 2022. For the intervention group (25 nurses), positive thinking skills training was conducted through group discussion in 8 sessions of 90 minutes of face-to-face training. Demographic characteristics and Blau job commitment questionnaire were used to collect data. Statistical analysis was done using IBM SPSS software (version 22). $p < 0.05$ was considered significant.

Results: The mean job commitment of nurses before the intervention in the intervention group (87.28 ± 17.02) and control group (90.80 ± 15.89) had no statistically significant difference ($p = 0.45$). After the intervention, these values reached 115.12 ± 18.10 in the intervention group and 91.28 ± 15.56 in the control group, with a significant difference between the two groups ($p < 0.001$). Also, job commitment improved from pre-test to post-test in the intervention group ($p < 0.001$), but was not significant in the control group ($p = 0.24$).

Implications for Practice: Considering the effectiveness of teaching positive thinking skills on nurses' job commitment, it is suggested that this simple, cheap and applicable method be used universally in nurses to strengthen psychological components.

Keywords: Job Commitment, Nurse, Positive Thinking, Skill

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Introduction

Human resources (HRs), as a key element contributing to the organization, are above all a significant indicator to measure their advantage once compared to each other. In this sense, committed and loyal employees act upon their assigned tasks much better and thus enhance the effectiveness and efficiency of the affiliated organization as well as its progress (1). So far, job commitment (JC) has been presented among the hidden but then effective factors in the work-related behavior of employees in the organization. Literally, this concept connotes taking on, maintaining, and binding promises, and it idiomatically refers to dedicating a responsibility and obliging oneself to do something (2, 3). As well, JC is a mental link between one's job and a set of beliefs, goals, and actions (4). It also represents the extent of devotion to the duties and responsibilities of a job plus the great efforts to have better performance (5). JC is among the human-related characteristics in the form of wholehearted satisfaction and practical obligation to the tasks delegated, provided that they are fulfilled in the best way possible under no monitoring systems (6).

In general, JC is made up of three components, viz., affective, continuous, and normative. In this context, affective commitment stands for an emotional connection with the organization and higher involvement in it; continuous commitment denotes the degree an employee is aware of the losses associated with quitting the organization or the benefits of staying there; and normative commitment signifies the sense of obligation to strive for a career. Having normative commitment, an employee feels morally obliged to continue cooperating with the organization (7). Overall, a committed employee is totally absorbed in one's job and exerts oneself to advance the goals and strategies of the affiliated organization. Such an employee also adopts a positive attitude toward the organization and its values. Therefore, the organization endowed with employees showing high JC is projected to have better organizational performance in competition with those having HRs with low JC (8).

The quality of healthcare services actually depends on the professionals who deliver them (9). In this regard, nurses constitute approximately 60-80% of HRs in Iranian healthcare centers, and have a leading role in caring for patients as well as maintaining and promoting their health status (10). Like other organizations, an integral part of providing optimal services in healthcare centers is JC among HRs, whose performance is vital for ensuring the quality of services (11). According to a systematic review by Bahrudi and Sharifi (2022), the majority of nurses had evidence for a moderate level of JC (12). Low organizational commitment in nurses could thus reduce their performance, and eventually bring down the quality of healthcare services (13). Managing JC among employees could bring more benefits to the organization, including efficiency, performance improvement, and job satisfaction. Considering JC in nursing, as a high-risk profession, directly related to the human body, the soul, and the entire life, as well as its utmost importance among nurses working for military hospitals and the sensitivity of their job and organization, it is essential to consider this concept and practice operational interventions to meet it.

As reported in recent research, the approaches in positive psychology have affected the development of government policies on psychological health and well-being (14-16). Positive psychology generally means a new movement toward understanding the positive aspects of the human experience (17). Positive JC, rooted in positive psychology, was thus originally described as the examination and application of positivism in the capabilities of HRs along with measuring, developing, and managing psychological capacities to improve performance in work environments (18). It also refers to the need to lay much focus on forming theories, doing research, and practicing positive states, attributes, and behaviors of employees at work in an effective manner (19). In point of fact, the main objective of positive JC is to reflect on the competencies and strengths of HRs and promote them, and ultimately make attempts to fix the weaknesses (20). Positive thinking interventions improves individuals' abilities to play against negative situations and concentrate on positive skills. Teaching such skills to nurses help them reach a realistic view of themselves and the quality of their working life, and then judge the real problems occurring in clinical settings in a correct manner (21). Positive thinking manifestations had not been highly evident among nurses due to their job burnout. As a result, healthcare policymakers and managers were required to take constructive measures to boost up positivity in order to tackle this challenge (22). The practice of positive thinking interventions on nurses has grown in recent decades, and their effectiveness has been also confirmed in various fields; e.g., happiness, resilience (23, 24), higher psychological health and well-being (25), and improved quality of working life (26). Considering the role of JC among nurses to enhance the quality of

healthcare services and no research on the impact of teaching positive thinking skills on this concept, the present study was conducted with aim to investigate the effect of a positive thinking intervention program on JC among nurses working for military hospitals in Tabriz, Iran.

Methods

This quasi-experimental pretest/post-test study with a control group was conducted on a statistical population of all nurses working at different wards of selected military hospitals in Tabriz, Iran, 2022. Assuming an alpha level of 0.05, a statistical power of 80%, and an effect size of 0.7 (27), the calculated sample size was 25 individuals per study group, for a total of 50 individuals.

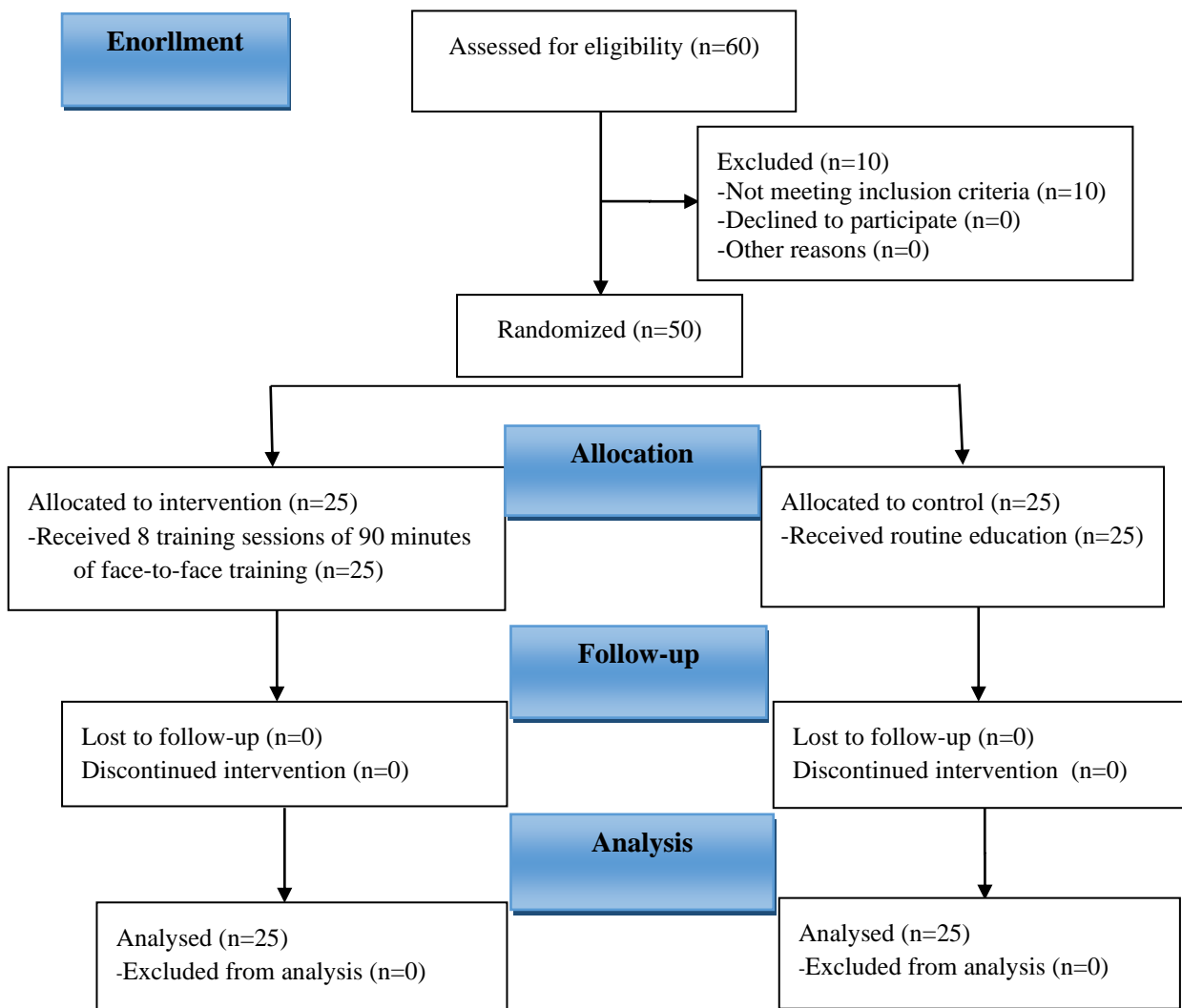


Figure 1. Flowchart of the effect of positive thinking skills training on job commitment of nurses

The nurses were recruited based on the inclusion criteria, including at least a Bachelor's degree in Nursing, one-year work experience in healthcare centers, having no managerial positions, such as being a matron, supervisor, and head nurse, not having a history of obvious mental and physical illnesses (in particular, diseases such as a history of depression, use of neuropsychiatric medications under the supervision of a specialist, and a history of hospitalization due to mental illnesses were considered), taking no psychiatric medications, not experiencing major crises, such as the death of the beloved ones over the past six months or divorce (28), and attending no educational workshops or positive thinking or resilience skills development courses. The exclusion criteria were withdrawal from cooperation with the study, missing two intervention program sessions, failure to complete the questionnaire, nurse transfer or retirement, illness or use of psychiatric medications, and experience of acute stress during the intervention period.

The data collection tools were the Sociodemographic Characteristics Questionnaire (SDCQ) (including age, gender, marital status, educational attainment, ward type, years of work experience as a nurse, and shift work) and the Career Commitment Scale (CCS, Blau, 1985) to measure job commitment as the primary outcome of the study. The CCS, as a 40-item questionnaire, consisted of four components, i.e., professional affiliation, organizational affiliation, work-related values, and job involvement, rated on a five-point Likert-type scale (1=very low, 2=low, 3=neutral, 4=high, and 5=very high), wherein a higher score indicated higher JC in respondents and vice versa (29, 30). The reliability of the given scale had been already established by Yaraghy IsfahanY and Mahdad (2017), using the Cronbach's alpha coefficient of 0.90 (31). Additionally, Banitaba et al. (2009) had reported the reliability of the given questionnaire, through the Cronbach's alpha coefficient of 0.89, by conducting a preliminary study (32). The reliability of this tool was further checked once again by determining the Cronbach's alpha coefficient and doing a test-retest. In total, 10 nurses completed the CCS at pre- and post-intervention stages within two weeks, and then the Cronbach's alpha coefficient of 0.84 and the intraclass correlation coefficient (ICC) of 0.90 were obtained.

Table 1. Educational program sessions, topics, and their content

Sessions	Topics	Educational content
1	Establishing good initial communication	Briefing, doing the pretest, establishing a good relationship, setting a group-based framework as well as its rules and regulations, elucidating the educational intervention program, introducing positive thinking, dividing nurses into small groups (5 participants), making nurses familiar with group and governing protocols, and giving an assignment for the next session
2	Knowing about the ways thinking and attitudes are formed	Reviewing the assignment, putting emphasis on development of thoughts and beliefs by humans themselves, writing about positive experiences and memories based on the Adlerian Push-Button Technique, talking about positive thinking features, and giving an assignment for the next session
3	Teaching positive thinking skills	Reviewing the assignment, reconsidering the key points and positive experiences mentioned, teaching positive thinking skills by challenging negative thoughts, manipulating mental images, practicing a constructive language, revising beliefs, having group discussions, and giving an assignment for the next session
4	Boosting positive thinking and feedback	Reviewing the assignment, teaching positive thinking skills through the institutionalization of positive thinking strategies in life, raising opportunities for positive thinking upon coping and adapting to unsolved problems, and giving an assignment for the next session
5	Offering solutions for positive thinking	Reviewing the assignment, teaching positive thinking skills through developing strategies to stop thinking, reassuring, and changing attitudes, binding, restraining, creating a sense of combativeness, sharing positive experiences, and giving an assignment for the next session
6	Strengthening beliefs in positive thinking	Reviewing the assignment, bringing laughter into life, establishing self-confidence, developing good sports habits, telling jokes and good memories, reporting positive experiences, and giving an assignment for the next session
7	Doing positive thinking exercises	Reviewing the assignment, practicing positive living through creating positive relationships, becoming aware of positive points in oneself and others, coping with criticism, establishing good relationships with those around, adopting a blame-free attitude, and giving an assignment for the next session
8	Summing up	Reviewing the assignment, summarizing the main positive points and getting feedback from the nurses, practicing the way to trust in one's abilities, appreciating the nurses, and doing the posttest

At first, two hospitals, Army 522 Hospital and NAJA Al-Ghadir Hospital, in Tabriz, Iran, were selected, and randomized into intervention group (IG) and control group (CG) via flipping a coin (Figure 1). Then, nurses were selected from each hospital using convenience sampling based on predefined inclusion criteria. The researcher ensured homogeneity between participants in both the intervention and control groups with respect to their individual, social, and occupational

characteristics. Following the selection of the study participants and completion of the required number of participants, the researcher introduced themselves, explained the objectives of the research, and assured the participants regarding the confidentiality of their information. Written informed consent was obtained from those who were willing to participate in the study. Prior to the intervention, the demographic and job commitment questionnaires were completed by the nurses in a self-report manner. Subsequently, the intervention was implemented exclusively within the intervention group. The intervention group received the educational program, which included positive thinking skills development in the form of group discussion, extracted from the book titled "Positive Thinking (Essential Life Skills)" (Quilliam, 2003), during eight sessions of 90 minutes. There were one face-to-face sessions per week for two months, in the presence of a faculty member from the Psychiatric Nursing Department at the School of Nursing affiliated to Tabriz University of Medical Sciences, along with the researcher, accompanied by a booklet containing the topics (Table 1). The CG received no intervention. After the intervention, the questionnaires were further completed once again by both IG and CG.

Data were analyzed using the IBM SPSS Statistics software (version 22) and descriptive statistics, mean, standard deviation (SD), frequency, and percentage, and the inferential ones, including Fisher's exact test, Chi-square test, independent-samples t-test, and paired-samples t-test. The Kolmogorov-Smirnov test was finally employed to check the data normality. The significance level of $p < 0.05$ was also considered for all tests.

Ethical Consideration

The study was approved by the Ethics Committee of Aja University of Medical Sciences, Tehran, Iran (ethical code: IR.AJAUMS.REC.1400.147). The Declaration of Helsinki (DoH) provisions were then observed; e.g., the nurses participated in the study on a voluntary basis and could withdraw as they wished. An informed consent form was also signed by all nurses. The confidentiality of information and the related sources was correspondingly ensured. Moreover, the principles of the Committee on Publication Ethics (COPE) were taken into account.

Table 2. Sociodemographic characteristics of the study participants

Variable	Mean±SD		Test result
	Intervention group	Control group	
Age (years)*	31.04 (7.43)	32.32(6.34)	$p = 0.516$ $t = -0.655$
Work experience (years)*	6.88(4.64)	8.20 (4.55)	$p = 0.316$ $t = -1.01$
	Frequency (%)	Frequency (%)	
Sex**	17 (68)	14(56)	$p = 0.561$
Male	8 (32)	11 (44)	
Female			
Marital status**	8 (32)	4 (16)	$p = 0.321$
Single	17 (68)	21 (84)	
Married			
Education**	22 (88)	24 (96)	$p = 0.609$
Bachelor's degree	3 (12)	1 (4)	
Master's degree			
Department of service***	7 (28)	5 (20)	$p = 0.603$ $X^2 = 1.28$
Emergency	11 (44)	15 (60)	
Internal-surgery	7 (28)	5 (20)	
Critical care			
Work shift**	3 (12)	1 (4)	$p = 0.778$
Morning	6 (24)	3 (12)	
Evening	3 (12)	1 (4)	
Night	1 (4)	4 (16)	
Morning and evening	1 (4)	3 (12)	
Evening and night	11 (44)	13 (52)	
In circulation			

P: P-value, SD: Standard Deviation, * Independent t-test, ** Fisher's exact test, *** Chi-square test

Results

A total of 50 nurses were recruited in the study. The participants' mean age in the IG and CG were 31.04 ± 7.43 and 32.32 ± 6.34 years, respectively. The mean year of work experience in the IG was also 6.88 ± 4.64 years and in the CG was 20.8 ± 4.55 years. Most nurses in the IG (68%) were male and married (68%). As well, no statistically significant difference was observed between the study groups in terms of sociodemographic characteristics ($p > 0.05$) (Table 2).

Based on the independent-samples t-test outcomes, there was no statistically significant difference in the mean scores of JC among the nurses in the IG and CG before the intervention ($p = 0.454$) (Table 3). After the intervention, these values reached 115.12 ± 18.10 in the IG and 91.28 ± 15.56 in the CG, which seemed to be significant with regard to the independent-samples t-test results ($p < 0.001$) (Table 3).

Table 3. Mean scores of job commitment in nurses before and after intervention

Group	Intervention group	Control group	Test result*
Before intervention	87.28 ± 17.02	90.80 ± 15.89	$p = 0.454$ $t = -0.756$
After intervention	115.12 ± 18.10	91.28 ± 15.56	$p < 0.001$ $t = 4.992$
Test result**	$P < 0.001$ $t = -9.879$	$P = 0.247$ $t = -1.486$	
Mean Difference (After intervention)	27.84 ± 14.09	0.48 ± 2.02	$p < 0.001$

P: P-value, SD: Standard Deviation, * Independent-samples t-test, ** Paired-samples t-test

Comparing the mean scores of JC in the IG, using the paired-samples t-test outcomes, indicated a significant difference between the pretest and posttest stages ($p < 0.001$), but this difference was not significant in the CG ($p = 0.247$) (Table 3). Figure 2 depicts the change trend of the mean scores of JC among the nurses.

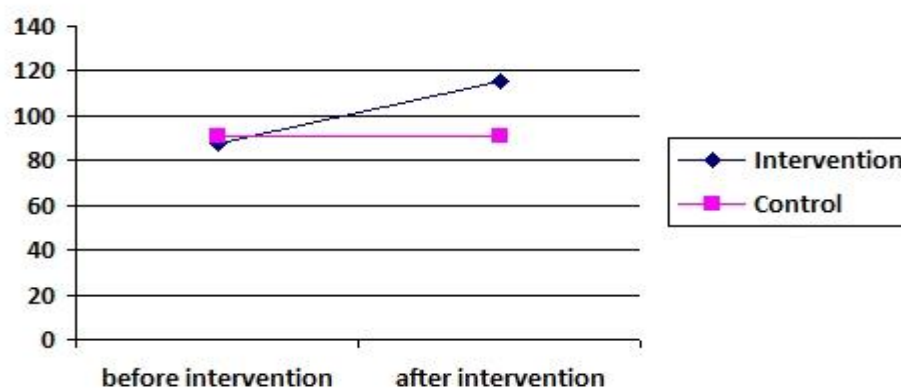


Figure 2. Change trend of mean scores of job commitment in nurses

According to Table 4, the intervention program had an effect on the mean scores of JC among the nurses during the posttest after the control of the difference in the mean scores of both groups in the pretest ($p < 0.001$). With respect to the ES, 18% of the changes in the dependent variable during the posttest were induced by the educational intervention program.

Table 4. Covariance analysis test to compare the mean scores of nurses' job commitment

Source	Sum of squares	df	Mean square	Test result	Effect size	Test power
Pre-test	9301.19	1	9301.19	$p < 0.001$ F=98.90	0.68	1
Group	943.74	1	943.74	$p = 0.003$ F=10.03	0.179	1
Error	4525.30	46	96.28			

Discussion

The purpose of the present study was to determine the effect of an intervention program for developing positive thinking skills on JC among the nurses working in the selected military hospitals in Tabriz, Iran. The study results showed no statistically significant difference in the mean scores of JC among the nurses in both IG and CG before the intervention, but a statistically significant difference was found after the intervention. Moreover, JC in the nurses increased in the IG, but this was not so in the CG, and no significant change occurred at both stages. Given the extensive searches on the domestic and international databases, no interventional studies on the effects of positive thinking skills development on JC in nurses were found. Thus, other related interventional studies were exploited in order to raise the discussion.

The present study indicated that positive thinking skills development improved JC in the nurses. In this line, Barqi Irani et al.(2020) in a quasi-experimental study had further investigated the effectiveness of positive thinking and resilience skills courses on enthusiasm at work, organizational commitment, and happiness in managers, and reported that the mean scores of both groups had significantly changed after the intervention program, but it was significantly improved in the intervention group (33). The reason for the consistency of the results in these studies and the impact of the intervention program was much emphasis on positive thinking. In the present study, positive psychology was introduced to the nurses by teaching positive thinking skills and there were even attempts to help them face many problems in a logical manner. Although JC could be influenced by numerous factors, it seemed that having positive thinking could be effective in increasing job satisfaction, enthusiasm at work, and prior commitment. Notably, the nursing profession was very sensitive and no commitment to care as its core could directly influence people's lives. Therefore, practicing some strategies and interventions could be helpful in this domain. Similarly, Motamed-Jahormi et al. (2017) found that positive thinking skills development using smartphone apps had enhanced the quality of working life in nurses (26). Although the quality of working life differed from their JC, both were job-related phenomena that could be promoted under the influence of positive thinking. In this vein, Qasri et al. (2011) reported the valuable role of high quality of working life in organizational commitment among the employees of Amin Police Academy, Tehran, Iran (34). According to Kooshal Shah et al. (2015), the interventions designed based on positive thinking significantly affected occupational stress among the nurses. It had been further argued that the development of positive thinking skills could reduce this type of stress (35). Besides, Lotfi and Hosseini (2018) revealed the significant impact of positive and systemic thinking on employee performance (36). The nursing profession and JC in the nurses could be thus shaped by many factors, including optimism and positive thinking (37). In this context, Xu and Zhu (2022) showed that the greater the psychological capital in teachers, the higher their JC and optimism. Positive psychological capital had four components of hope, optimism, efficacy, and resilience enabling individuals to upgrade their well-being (38). The effectiveness of positive thinking in various target groups has accordingly established to promote healthy and positive behaviors at work and then minimize the complications and problems caused by jobs.

Bahrudi and Sharifi (2022) in their systematic review suggested that the leading factors in organizational commitment among nurses were individual factors (age, marital status, educational attainment, work experience, position, ward type, shift work, and type of employment) and organizational factors (ethics, moral intelligence, stress management through communication skills development, participatory management style, organizational citizenship behavior, occupational empowerment, trust in clinical education, quality of life, distributive and interactional justice, organizational identity, psychological empowerment, self-efficacy, job satisfaction, organizational

justice, organizational support, and organizational trust) (12). As well, Salehi et al. (2018) had argued that teaching positive thinking skills was practical in promoting communication skills in nurses (39). Positive thinking skills development through teaching communication skills could indirectly improve JC. Jensen et al. (2022) correspondingly concluded that ensuring a collaborative environment could enhance performance and JC in employees and then lead to uncertainty reduction during care in clinical settings (9). In this respect, Yue et al. (2022) concluded that increasing JC could reduce job burnout (40). Even though there was no study investigating the effect of positive thinking skills development by an educational intervention program on JC in nurses for comparison purposes, based on the results of the present study and evidence in other sources, it was supposed that positive thinking could directly and indirectly influence JC among nurses.

One of the major limitations in this study was the possibility of sharing information by the IG and CG. To minimize information exchange between the study groups, the researcher tried to select two hospitals for sampling. Moreover, many challenges during the coronavirus disease 2019 (COVID-19) pandemic added to the sampling problems in this study. The other limitation was that the related literature had dealt with organizational commitment. As JC and organizational commitment were interrelated variables despite their unique conceptual definitions, the studies focused on organizational commitment were cited due to lack of research on JC in nurses. Also, this study did not examine the effect of variables such as number of children, interest in the profession, and clinical sector on job commitment. Therefore, it is suggested that future studies be conducted considering these issues.

Implications for practice

This study established that teaching positive thinking skills was effective in JC among the nurses working for selected military hospitals in Tabriz, Iran. This implied that educational programs as simple, economical, feasible, and efficient interventions could be useful in nursing. Given that the most valuable capital of the organization was HRs, developing JC in employees was vital and demanded much attention by policymakers and managers. Considering the problems caused by healthcare services and the need to bolster the main factors in enhancing their quality, such as JC, healthcare policymakers and managers can implement effective interventions along with positive thinking techniques in nursing to help retain HRs and promote the quality of nursing services. The present study as the first attempt was an introductory one in the field of positive psychology, positive thinking skills development, and the related technique in nursing, which can be further included in the content of continuous education in clinical settings of nursing. This study is recommended for nurses in civilian hospitals and different regions of Iran, and even for other medical staff.

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Conflicts of interest

The authors declared no conflict of interest.

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Authors' Contributions

N.J.G was responsible for the study conception and design, content production and manuscript reviewing. B.A.A was involved in the planning, the content production and data collection. E.A performed data collection and interpretation and drafting of the manuscript. M.H.K.G was responsible for the study design and data analysis. All authors collaborated in the study and reviewed and approved the final manuscript.

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