The Effect of Neuro Linguistic Programing Strategies Training on Nurses’ Emotional Intelligence: A Randomized Clinical Trial Study

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ABSTRACT

Emotional intelligence has been as an important factor for decreasing job stress and better use of coping strategies in nurses. Therefore, it appears essential to improve the emotional intelligence in nurses. However, it appears that use of Neuro linguistic programming strategies can be help in this regard. In this research, we aimed to examine the effect of NLP strategies on nurses' emotional intelligence and its components. Consequently, in this clinical trial study had been done on 60 male and female nurses; it had been done in the form of experimental and control group in the Iran in 2013. There was significant difference between the average of the total score of emotional intelligence in nurses before intervention and after intervention in experimental group (P<0.001). Also this difference was significant in the average of the scores related to emotional intelligence components especially in self-management and management of the relationship in experimental group (P<0.05). Our results show that training of NLP strategies had positive and significant effect on emotional intelligence and its components, so teaching these guidelines in the form of educational workshop in clinical environment to nurses despite their special job requirement is recommended.

KEYWORDS: Strategy, Neuro Linguistic Programing (NLP), Emotional Intelligence, Emotional Intelligence Components, Nurse.

INTRODUCTION

Nowadays, emotional intelligence is considered as one of the important capabilities in professional success and management, which has been considered in nursing profession in the recent years. Emotional intelligence with a set, consisting of self-awareness and other skills affects personal success in coping with stress and demands of the environment (1).

Background

Emotional intelligence and nursing

Actually emotional intelligence is the skill and ability to recognize emotions and to understand and regulate them and using them in life that its total framework is summarized in two main skills that is personal capability and social capability. Personal capability concentrates on personal skills and includes; self-awareness and self-management. Social capability concentrates on how to treat others and includes; social awareness and relationship management (2).

Nurses due to their special job requirements need high emotional intelligence. Because it causes increase of their awareness about patients' demands and emotions , increase of empathy and adaptability and finally it will have effective communication and providing health care with better quality in the following (3).

Also about job, emotional intelligence has been indicated as an important factor for decreasing job stress and better use of coping strategies (4). Importance of this issue is because of that, high job stress is among important factors of job burnout (5). And job burnout causes decrease of job satisfaction; decrease of the quality of provided services and finally decreases of patient's satisfaction (6). On one hand appropriate management of emotions improves job satisfaction and decrease of job stress in the following and regarding this, emotional intelligence is very helpful (7). It means that nurses who have better recognition of their emotions and the present situations, have more ability in coping with negative and positive emotions and finally they experience less job stress (8).
Totally there are different studies in nursing about the uses of emotional intelligence in different areas such as; job burnout (9), job stress (10), job satisfaction (11), organizational commitment (12), clinical skills (13) and conflict management (14). From one hand emotional intelligence can be considered in nursing education as a model for strengthening rational and emotional process, because in addition to other uses, it has professional identity coherent in the following (15). So what seems important is increase and improvement of emotional intelligence, because as an important capability in nursing, it can be increased by different psychological and sociological doctrines (16). Regarding this, in addition to that the done researches are limited in nursing, also in the studies, which have been done; score of nurses' emotional intelligence has been indicated in the moderate level (17-19).

The remarkable note about emotional intelligence is that despite being high or low, it can be improved and it is counted as one of the biggest scores of emotional intelligence (2). This issue has been proved many times in different studies (19-23). There are also many educational studies in order to manipulate and improve emotional intelligence. In this study, it has been tried to use the effect of provided guidelines in NLP on nurses' emotional intelligence.

**Neuro Linguistic Programming**

Neuro Linguistic Programing, under the title of NLP had been introduced for the first time by Doctor Richard Bandler and Professor John Grinder in California University in 1970. They carefully observed professional behavioral community in different fields of business, education, law and medical during many years and they tried to make a behavioral model according to this in the following, they also explained successful attitude and provided tools for improving quality of communications (24).

The aims of NLP is expanding personal skills by improving perception and understanding of thought process, behavior and language process in communicating with others (25). Actually using NLP with its content and knowledge and providing specified principles and techniques has been cleared in different fields that effective communication is among its dominant activities (26). In a way that it also has been introduces as one of the important tools in improving quality of teacher-student's relationship (27).

NLP doctrines have the social-cognitive theoretical approach, in a way that the interventions arising from these doctrines lead to self-efficacy and self-inhibitory. In another word these doctrines provide ground for self-regulation of emotions and motivations behavior (28).

Expanding NLP was in a form in order to be a model for effective communication, individual developments, increase of learning and achieving more satisfaction in life. In another word NLP is actually the science and art of being successful and it makes possibility of achieving favorite results for the person (29).

So NLP is a communication model and it discusses about personal skills and experiences in the way of communication with him/her and others (30). So far, in different studies, NLP doctrines have been used in different fields such as; general health and academic motivation (31), teachers' educational success (32), anxiety (33), health (34), learning (35), behavioral capabilities and skills (30) and effective communication (26). But, there was no study, regarding this issue about emotional intelligence up to now. Since, teaching emotional education is counted as a big evolution and necessary need in nursing and it has development of art in relationship of nurse-patient, progress of personal and professional boundaries and improvement of human vision about patient in the following. In addition, its improvement leads to promotion of provided services to the patients and promotion of nursing profession (36).

According to the necessity of promoting emotional intelligence due to their job circumstances and from the other side, lack of studies about NLP effect on nursing emotional intelligence, so according to the provided contents, approaches and guidelines in NLP, it is likely that we can effect on emotional intelligence by using them directly or indirectly. Also in this study based on preliminary studies, which had been done by the researcher before, it has been cleared that nurses in self-management components and managing relationship are weak and they were better in self-awareness and social awareness components (37). So intervention program had been designed based on this issue and mostly with the aim of being effective on two self-management and managing relationship components. Because this approach is about emotional intelligence that with working on one component, other components are going to be affected (2). So the present study had been done with the aim of studying the effect of NLP guidelines on nurses' emotional intelligence.

**METHODS**

**Aim**

The aim of this study was to explore the effectiveness of an educational intervention (based on NLP guidelines) on nurses' emotional intelligence and its components.
Design
A randomized clinical trial (registered as IRCT2013031112792N1) of two-group intervention-control design was employed. The study design is presented in Fig. 1.

Sampling and Participants
Purposive sampling was applied to the recruitment of nurses from one medical center (Hazrate Fatameh (s)) in Iran after submission of a proposal and the receipt of permission to undertake this research. Participants were randomly assigned two groups: an intervention group (n=30) and a control group (n=30). In this study sample size by using Altman Nomogram with counting \( \alpha=0.05 \), \( \beta=0.10 \), Power=90 that with possibility of 10% attrition, sample size had been counted 30 people in every group. The two groups of nurses' characteristics and educational background were compared and found to be similar. All variables showed no significant differences.

Instrument
The Persian version of Bradbury greaves emotional intelligence questionnaire (2005) comprising 28 likert-type questions was used in this study. This questionnaire provides measurement of four components (self-awareness, self-management, social awareness, relationship management) and total score of emotional intelligence (2). The scoring methods of the test is conducted with a 6 score scale from 1 to 6. The raw score of the test is calculated by summing the total score, the higher score, and the higher emotional intelligence. The reliability of this test has been reported to be 0.83 by Cronbach's Alpha. The validity of the scale is also been calculated using convergence correlation method with bar-on emotional intelligence questionnaire and reported \( r = 0.67 \) (P< 0.01) (38).

Data collection
After head nurses were informed by nursing administration that our research would be conducted in the nurses, we contacted those head nurses who provided consent for their wards to be data gathering sites, and discussed the procedure for distributing the questionnaire to the nurses. In the control group, all nurses were tested on the 28 questions pre- and post-one weeks without undergoing intervention. In order to ensure that the control group's nurses also benefitted from this research, we offered them hard copies of the educational file at the end of the research. As for the intervention group, the researcher arrived at the appointed time, distributed the questionnaires as pre-test and then performed the educational intervention. This included the NLP strategies education to explain the representation systems, rapport principles and effective communication, goal setting and calibration. The teaching time was limited to 8 hours in during two days. After one week, the head nurses distributed and then collected the questionnaires containing the post-test. This research was done 2013 in Iran (Kerman city).

Ethical Considerations
The ethics committee of Baqiyatallah University of Medical Science approved the study. Each questionnaire included a cover letter to explain the purpose of the study, its voluntary nature and the anonymity of the responses. The research design provided autonomy, giving nurses the freedom to decide whether or not to participate and release information. No identifying information was included in the questionnaire. Participating nurses could decide whether to return the questionnaire or to ignore it. Returning the questionnaire implied consent to participate in the study.

Data analysis
SPSS statistical software version 17.0 was used for the descriptive analysis of the questionnaire. Variable values were expressed as mean± standard deviation (SD). The t-test, paired t-test and chi-square test were used to examine the discrepancies between backgrounds and the scores of participating nurse.

RESULTS

Background Characteristics and Scores
A total of 60 nurses participated in this study, 15 female and 15 male with an average age of 34.43 ±5.11 years were in the intervention group and 15 female and 15 male with an average age of 32.07(±6.91) were in the control group. Data on nurses' backgrounds, such as their total of experience working, marital statues and education degree shown in the Table 1.

Comparison of Control and Intervention Groups' Scores
Pre-intervention scores of the control group (n=30) and intervention group (n=30) were compared and showed no significant differences (control vs. intervention) (Table 2).

| Table 2- Comparison of control and intervention groups' scores in pre-and post-intervention tests. |
|---|---|---|---|---|---|
| Group | Pre-test | Post-test | Paired T-Test | Before intervention | After intervention | Paired T-Test |
| **Areas** | | | P value | | | P value |
| Self-awareness | 83.33±6.04 | 6.63±3.40 | 0.9 | 85.03±6.20 | 87.70±5.05 | 0.018 |
| Self-management | 11.64±5.40 | 9.57±68.40 | 0.2 | 68.73±10.60 | 74.57±7.32 | 0.013 |
| Social-awareness | 76.30±5.15 | 74.70±6.41 | 0.1 | 77.73±5.45 | 79.97±5.30 | 0.03 |
| Relationship-Management | 77.83±7.60 | 75.27±8.24 | 0.06 | 74.63±12.62 | 83.33±7.25 | 0.0001 |
| **Total score of emotional intelligence** | 75.77±5.22 | 75.43±5.74 | 0.74 | 76.47±7.13 | 81.47±4.69 | 0.0001 |

**Post-Intervention**
After the one-week interval, The intervention group scored higher in the post-test than in the pre-test to a statistically significant degree (pre vs. post; 76.47±7.13 vs. 81.47±4.69; p<0.0001) but the control group did not (pre vs. post; 75.77±5.22 vs. 75.43±5.74; p=0.74) (Table 2).

**DISCUSSION**
In this study the rank of the average of emotional intelligence score and self-awareness, self-management, social awareness and relationship management components in intervention group had significant difference in comparing with control group. It shows the effective of NLP strategies education on intervention group.

The results this study showed that there is significant difference between intervention group, which passed NLP educational workshop and control group regarding emotional intelligence. The average of score emotional intelligence of the samples of intervention group was higher than the average of control group. According to this, it can be deduced that NLP guidelines education had positive effect on emotional intelligence in intervention group. These results indicate variability of emotional intelligence and its improvement with education, this result similar to results of other studies (39), (20), (40), (41), (21), (42), (43).

In studying results showed that NLP strategies education had significant difference between two intervention and control groups regarding self-awareness and self-management as personal skills. In this study, difference in the average of self-management score was higher in compare with self-awareness score and it can be due to the used techniques in educational workshop that considering the educational content, it is going to have different effect on the components. From one hand, the four components of emotional intelligence are overlapped remarkably; it means by working on self-management, it is likely that other skills to be improved (2).
The Results was similar to results of previous studies (44), (45), (46), (47). In the opposite direction, Kazemi (39) conducted which has used education of emotion management skills in order to increase emotional intelligence, regarding personal skills, only self-awareness score has been increased and there was no significant difference in the case of self-management. May be the study of Ghafari (48) emphasizes this idea that by working on one skill, it is possible to increase emotional intelligence, since he used emotional self-awareness education in one of her study aims as a factor in increasing emotional intelligence that the results have been reported successful.

From one hand, regarding increase of self-awareness in this study, it can be said that NLP training increases self-awareness through changing of the insights, considering the relationship of body and soul and in this regard, awareness develops into representation systems, individual aims and values and it leads to the awareness of others and based on these levels, the person’s communicative action awareness is more effective (49).

Self-management is introduced as a practical side and outcomes of the other components of emotional intelligence (2) one of the things, which had been done in this study was practices that members of the group did them in the form of group discussion and they talked together and at the end it had been asked from every one to explain others’ weak and strong points, may be this is one of the reasons that a person can touch and criticize the way of using emotions practically and finally to achieve better self-management score. As one of the skills that Kimiaee (50) used for using emotions tools is role playing that also the achieved results had increase of emotional intelligence and its components in the following. Actually NLP trainings with the support of social cognitive approach lead to self-efficacy and self-inhibition beliefs. In another word, these trainings prepare the ground for self-regulation of emotions and motivations behavior (28).

Also in the study of the fourth and fifth thesis, results of this study showed that NLP guidelines education had significant difference between two intervention and Control groups regarding social awareness and relationship management as social skills in the case of emotional intelligence. this issue is justifiable in this respect that among guidelines, which have been used in the educational workshop, there were the way of using successful relationship, recognition and attending to communication channels and also unconscious compatibility with the other side that in other studies, which had been done regarding increase of emotional intelligence, such as other studies (44), (39), (51) also states strengthening and achieving such goals. In this respect results of this study is in consistent with the studies (52), (53), (44), while the results of the study of Kazemi (39) in the component of social awareness had been reported ineffective. May be the reasons of this difference can be due to the kind of interventions and also tools that are using for measuring emotional intelligence components, since formation of these tools regarding the way of measuring emotional intelligence and its components is different. Since the techniques that are named as an important factor in increasing social awareness are listening and attending body language, sound intensity and speed of physical actions (2). Also, in this study, these techniques have been used in the form of successful relationship criteria. Also Ehteshamitabar (31) in his study, stated using trainings such as representation systems, effective communication and scoping as a factor for changing personal and interpersonal indexes among learners that finally it leads to realistic perception of themselves, attunement of personal belief and emotions, emotions and behaviors control and purposefulness in life. Also NLP trainings helps effective communication and perceiving relationship process by providing representation systems technique (54). As also Abe (55) stated expressing feelings and listening to others and relationships as a factor for increasing emotional intelligence.

Conclusions:

Our results in this study showed that NLP strategies education by designing a systematic plan based on the basis and content of emotional intelligence can have positive effect on emotional intelligence and its components in nurses.

So by considering nurses’ stressful job circumstances, holding short-term educational periods with the content of NLP guidelines trainings for improving nurses’ emotional intelligence in continuing education/training programs and university environment for the students is recommended.

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