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The effectiveness of the transactional analysis on mental well-being and empathy in nurses

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Original Article

Abstract

BACKGROUND: A healthy interpersonal relationship is a key contributor to nurses' success in their occupation. Hence, nurses who are equipped with essential interpersonal skills know how to treat patients with dignity and respect and do their jobs more effectively. Despite the rapidly growing body of research on various aspects of transactional analysis (TA), only a few studies have addressed the role of TA in the nursing area. This paper reports on a study that investigates the effectiveness of TA on mental well-being and empathy among nurses in Sanandaj, a city in the west of Iran.

METHODS: This study adopted a quasi-experimental design and a pretest-posttest design. Using the available sampling method, 26 nurses were randomly assigned to an experimental and a control group. The experimental group received two months of training in TA through eight 90-minute sessions. A questionnaire was used to collect data before and after the TA training program (Sanandaj, 2018).

RESULTS: There were statistically significant differences between the experimental and control groups in emotional ($P \leq 0.05$), psychological ($P \leq 0.05$), and social ($P \leq 0.01$) well-being, reactive and verbal empathy ($P \leq 0.05$), and emotional effectiveness ($P \leq 0.05$).

CONCLUSION: The findings of the study reveal that TA training can enhance the mental health of nurses effectively.

KEYWORDS: Transactional Analysis; Psychological Well-Being; Empathy

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Introduction

Mental health is an umbrella term that encompasses emotional, psychological, and social well-being. Thus, health is a dynamic state according to which people are constantly adapting to changes in the environment. It is important to understand how work-associated stress affects nurses, and what factors in their working environment cause the greatest burden. It is also of great importance to gain more knowledge about nurses' working conditions, occupational stress, and job satisfaction – knowledge that might be used to decrease their occupational stress and increase their job satisfaction.[1] Likewise, providing healthcare and supporting people to improve or control their physical and mental health rests with the health sector. Given the fact that no healthcare system can work effectively without proficient staff and workforce, the nursing profession plays a central role in achieving health service objectives. They cope with physical and psychological stresses in the hospital, problems of the patients, family problems,

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financial problems, lack of communication skills, and occupational burnout.[2,3]

The World Health Organization (WHO) has defined mental health as a state of well-being in which one recognizes one's abilities, copes with normal life stresses, works effectively and productively, and is beneficial to one's community. Many scholars have emphasized the significance of the concept of well-being and its relation to mental health, and most of them have defined mental health as the state of the lack of mental illness and the presence of high levels of well-being. The issue of mental well-being is dealt with by a branch of psychology known as positive psychology which seeks to examine the cognitive and emotional evaluation of individuals. The evaluation of emotional, psychological, and social well-being is primarily concerned with empathy and interpersonal relationships.[4]

The importance of well-being and mental health has been emphasized in various studies.[5-7] Ostir et al. stated that satisfied and happy people experienced more positive emotions and had more positive evaluations of the events around them.[8] Bordwine and Huebner also believed that these sensitive people had higher restraint and control and experienced greater academic achievement and life satisfaction.[9] Diener and Seligman also stated in their research that these people had a healthier immune system and higher creativity.[6] Frisch also believes that the study of the well-being of individuals and societies and its promotion is the greatest scientific challenge of mankind after the increase and progress in the field of technology, medicine, and wealth.[10] These studies suggest that pleased and satisfied individuals experience more positive emotions and have more positive evaluations of their surrounding events. They have a greater sense of control, experience higher levels of academic achievement and life satisfaction, have a healthier immune system, and have higher levels of creativity.[11] Nowadays, researchers believe that mental well-being leads to more success, more supportive social interactions, and ultimately higher mental and physical health.[5,12-14]

In the realm of health and well-being, emotion and empathy play an important role in the relationship between nurses and patients, and those around them. They are also significant in terms of life satisfaction in general.[15] Empathy in the general sense of the term is the ability to place oneself in place of others to better understand their feelings and experiences. The need for empathy is one of the basic needs of human beings upon which relationships are built.[16] It also plays an essential role in interpersonal commitments and social interactions, quality of family relationships, increased health, maintenance of interpersonal relationships, problem-solving strategies, and job motivation among nurses.[17] Some scholars consider the basis of all aspects of psychological growth, psychological injuries, and human development in general in the process of communication, in a way that they emphasize the ability to communicate properly as an essential component of nursing care.[13] Many researchers including Amini et al.[7] and Porzoor et al.[13] argue that in order to increase life satisfaction, one must develop communication skills such as proper interaction with others, problem-solving techniques, and assertive behaviors. Among communication theories, the theory of TA, developed by Eric Berne, is one of the most effective methods for demonstrating healthy interpersonal relationships and developing the individual's intrapersonal capabilities. It is a transactional training method that emphasizes the cognitive, rational, and behavioral aspects and aims at increasing the individuals' awareness and the ability to make new decisions, thereby changing the course of their lives.[18] Research indicates that teaching TA increases the dimensions of psychological

well-being, including self-acceptance, mastery of the environment, autonomy, and positive relationships with others.[14,19]

Methods

This quasi-experimental study was conducted on two groups of nurses with a pre-test and post-test design and a control group to determine the effect of transactional analysis (TA) training on mental well-being and empathy in nurses. The statistical population of this study included all nurses of Tohid Hospital in Sanandaj City, Iran, 2018, 26 of whom were selected by the available sampling method (26 participants remained during the study) and randomly assigned to 2 groups of experimental and control. In this study, the inclusion criteria were controlled in terms of gender, age, and marital status. It should be noted that 15 men (57.70%) and 11 women (42.30%) participated in the study. Among the participants, 6 were married (23.08%) and 20 were single (76.92%). All the participants hold a Bachelor of Science in Nursing. The nurses were informed that participation in the study was voluntary. All of the participants signed a consent form, and the results were recorded based on the code of ethics (IR.MUK.RAC.1396.5038) received from the Islamic Azad University of Sanandaj.

In this study, the Keyes and Magyar-Moe's Mental Well-Being Questionnaire (2003) was used to measure mental well-being. This scale, which consists of 45 questions, was used to measure the participants' emotional, psychological, and social well-being. In this questionnaire, the first 12 questions are related to emotional well-being (scored based on the 5-point Likert scale), and the next 18 to psychological well-being (scored based on the 7-point Likert scale). The items are about self-acceptance, purpose in life, mastery over the environment, relationships with others, personal flourishing, and autonomy. The last 15 items center on social well-being (scored based on the 7-point Likert scale). The items focus on social solidarity, social cohesion, social acceptance, social participation, and social realism. The internal validity of the subscale of emotional well-being was 0.91 in the positive emotion section and 0.78 in the negative emotion section. The subscales of psychological and social well-being had an average internal validity of 0.4 to 0.7 and the total validity of both of these scales was ≤ 0.8. In Keyes and Magyar-Moe's study, the reliability factor was used to evaluate the validity of this scale.[20] In Iran, Golestani-Bakht translated this questionnaire and confirmed its reliability by exploratory factor analysis (EFA). The reliability coefficient of mental well-being and its subscales of emotional, psychological, and social well-being were 0.75, 0.76, 0.64, and 0.76, respectively. Moreover, the Cronbach's alphas for each of the above subscales were 0.80, 0.86, 0.80, and 0.64, respectively, which indicate robust internal consistency.[21]

Furthermore, in this study, emotional empathy was measured by the Emotional Empathy Questionnaire designed by Mehrabian and Epstein (1972) which consists of 33 items (including reactive empathy, verbal empathy, participatory empathy, emotional empathy, emotional stability, empathy toward others, and control). In Mehrabian and Epstein's study, the reliability coefficient was 0.84 and Cronbach's alpha was 0.88. The positive and significant correlation of the subscales' scores with the total scores of the Balanced Emotional Empathy Questionnaire shows the reliability of this measurement tool.[22] In the study of Besharat et al., the construct validity of translated version of this questionnaire was investigated and construct validity was investigated and validated through EFA. They also used Cronbach's alpha for reliability and obtained a value of 0.91.[23] Descriptive statistics indices including mean and standard deviation (SD), Levene's test, Kolmogorov-Smirnov test, Wilks' lambda test,

and multivariate analysis of covariance (MANCOVA) were used for data analysis.

The main focus of TA is the three ego states (Parent, Adult, and Child) and their interactions (complementary, crossed, and covert). Whenever the individual is able to activate the relevant part at the right time, she/he will be in harmony not only with her/his inner parts but with others as well. Individuals will learn how to activate and engage their Adult state and monitor their Parent and Child states when problems arise to examine the cause and find a solution. The ultimate goal of this theory is to educate individuals to achieve self-consciousness (consciousness, spontaneity, and intimacy), to abandon presuppositions, and to achieve effective problem-solving strategies.[24] Therefore, based on Stewart and Joines Transactional Analysis (translated into Persian by Dadgostar, 2016), an eight-session protocol was designed and administered to the experimental group for 2 months in 90 minutes each session. The content of this training program is presented in table 1.

Results

The results of the pre-test and post-test of the control and experimental groups show that after adjusting the pre-test scores in emotional, psychological, and social well-being, reactive and verbal empathy, and emotional effectiveness, there was a significant difference between the two groups. The results of this study are in line with the studies conducted by Ayadi et al.[14] on well-being and empathy among nurses, Pournajaf[25]on empathy among nurses, and Mahmoudpour et al.[26] on TA training on psychological well-being among nurses.

The results of these studies suggest that mental well-being and empathy play an important role in determining the quality of life and interpersonal relationships among nurses. In addition, participation in training sessions can help individuals in their interpersonal relationships, give them a better understanding of themselves and others, and offer a plan for appropriate communication styles, thus leading to increased self-awareness, mental well-being, and empathy. Tables 2 and 3 present the mean and SD of the variables, along with the results of Levene's test and Kolmogorov-Smirnov test.

As the results in table 3 show, the assumption of normality has been observed in all the factors.

Table 1. Training sessions schedule

Session	Content
1	Introduction: establishing relationships, determining frameworks and rules, and implementing the pre-test
2	Teaching the "Child ego state" and its characteristics and assigning some tasks for the next session
3	Reviewing the assignments of the previous session, teaching the "Parent ego state" in its different modes (supporting, blaming, and controlling Parent), enumerating its signs, providing examples, and assigning some tasks for the next session
4	Reviewing the assignments of the previous session, teaching the "Adult ego state" and reinforcing the responsibility dimension, teaching the concept of contamination and its variants, and assigning some tasks for the next session
5	Reviewing the assignments of the previous session, discussing the four life states, relationship, and communication units, and assigning some tasks for the next session
6	Reviewing the assignments of the previous session, analyzing the concept of caressing and its types, exploring the determinants of our life scenarios, introducing Karpman's Drama Triangle, and assigning some tasks for the next session
7	Reviewing the assignments of the previous session, investigating types of relationships in terms of the TA approach (complementary, crossed, covert), examining the inhibitors and triggers in the TA approach, and assigning some tasks for the next session
8	Summarizing the key concepts of the TA approach, answering questions and ambiguities, and performing the post-test

TA: Transactional analysis

Table 2. Mean and standard deviation (SD) of the subscales of emotional well-being and empathy in experimental and control groups

Variables	Experimental group		Control group	
	Pre-test (mean ± SD)	Post-test (mean ± SD)	Pre-test (mean ± SD)	Post-test (mean ± SD)
Emotional well-being	36.00 ± 5.38	39.23 ± 4.97	37.38 ± 2.43	36.80 ± 6.64
Psychological well-being	84.08 ± 13.65	83.61 ± 11.59	94.77 ± 11.55	92.46 ± 10.94
Social well-being	57.46 ± 10.59	60.23 ± 10.03	65.15 ± 9.77	68.08 ± 14.62
Reactive empathy	43.54 ± 6.49	42.00 ± 6.34	43.69 ± 8.23	40.92 ± 8.13
Verbal empathy	27.69 ± 6.16	30.15 ± 4.51	29.38 ± 6.71	30.00 ± 6.23
Participatory empathy	35.77 ± 4.66	36.54 ± 6.37	36.00 ± 5.79	36.38 ± 5.63
Emotional effectiveness	38.00 ± 7.08	37.54 ± 7.09	37.23 ± 8.12	39.38 ± 6.97
Emotional stability	19.15 ± 2.94	21.15 ± 3.02	18.38 ± 2.59	18.85 ± 4.22
Empathy toward others	19.38 ± 4.87	21.77 ± 2.95	17.54 ± 3.62	18.46 ± 3.84
Control	8.92 ± 3.59	10.46 ± 2.26	10.46 ± 4.99	10.77 ± 3.47

SD: Standard deviation

Furthermore, according to the results of the Levene's test, the assumption of the homogeneity of error variance has been considered. The results of the Box's M test for the homogeneity of variance matrices, and covariance (P = 0.005, F = 1.22, Box's M = 3.52) were not significant. Therefore, based on the results, a MANCOVA test can be used. The results of Wilks' lambda to examine dependent variables were as follows: value = 0.052, F = 9.167, degree of freedom (df) hypothesis = 10.000, df error = 5.000, P = 0.012, eta-square= 0.648.

The results indicate that there was a significant difference between experimental and control groups in at least one of the variables of mental well-being and emotional empathy. The Chi eta value of the Wilks' lambda test indicates that group membership accounts for 0.64% of the total variance.

As table 4 indicates, after adjusting pre-test scores in emotional, psychological, and social well-being, reactive and verbal empathy, and emotional effectiveness, a significant difference was noticed between the two groups. These results indicate the effectiveness of TA training on mental well-being and empathy.

Discussion

This study was designed to investigate the effect of TA on nurses, because they spend an important part of their lives in the workplace, and are more prone to stress and burnout. The results of the present study indicate that after conducting the TA training program on the pre-test and post-test levels on control and experimental groups, there was a significant difference between the two groups in terms of emotional (P ≤ 0.05), psychological (P ≤ 0.05), social well-being (P ≤ 0.01), reactive and verbal empathy (P ≤ 0.05), and emotional effectiveness (P ≤ 0.05).

Table 3. The results of Levene's test and Kolmogorov-Smirnov test

Levene's test	Levene's test		Kolmogorov-Smirnov test	
	F	P	Z	P
Emotional well-being	1.960	0.174	0.498	0.965
Psychological well-being	2.710	0.113	0.558	0.915
Social well-being	0.114	0.738	0.843	0.476
Reactive empathy	0.226	0.639	0.852	0.462
Verbal empathy	1.500	0.232	0.747	0.632
Participatory empathy	0.292	0.594	0.571	0.900
Emotional effectiveness	0.770	0.389	0.442	0.990
Emotional stability	0.102	0.753	0.736	0.651
Empathy toward others	1.350	0.212	0.627	0.826
Control	0.249	0.622	0.752	0.623

Table 4. The results of multivariate analysis of covariance (MANCOVA) for the analysis of the mean of dependent variables in control and experimental groups

Variables	SS	df	MS	F	P	Effect size
Emotional well-being	2479.213	11	58.383	3.300	0.019	0.722
Social well-being	3244.346	11	294.941	4.454	0.005	0.778
Psychological well-being	2479.929	11	225.448	2.936	0.031	0.698
Reactive empathy	925.309	11	84.119	3.297	0.019	0.722
Verbal empathy	504.950	11	45.905	3.137	0.024	0.711
Participatory empathy	414.442	11	37.677	1.162	0.389	0.477
Emotional effectiveness	852.423	11	77.493	3.047	0.027	0.705
Emotional stability	149.734	11	13.612	0.915	0.551	0.418
Empathy toward others	215.009	11	19.546	1.988	0.113	0.610
Control	104.227	11	9.475	1.301	0.316	0.506

SS: Sum of squares; df: Degree of freedom; MS: Mean squares

This research is in line with the research of Barzegar,[19] Shulnik,[27] Copeland and Borman,[28] and Mahmoudpour et al.[26] The findings of this study suggest that TA training can enhance the mental health of nurses. In their studies on TA training, Shulnik, Copeland, and Borman found that TA training increased happiness and improved interpersonal relationships. Mahmoudpour et al. study on the effectiveness of training transactional communication analysis on nurses' self-esteem, emotional intelligence, and psychological well-being indicated that training Eric Berne's transactional communication analysis method had a positive effect on increasing nurses' well-being, self-esteem, and emotional stability. This shows the effectiveness of training Berne's TA as a model to decrease professional stress and depression, increase effective relationships, and control negative emotions and high-risk behaviors among the hospital staff.[29]

Little research has been done in the field of TA and no research has been found to oppose the effect of TA on mental well-being and empathy. In general, based on the results of existing research, TA leads to increased mental health and improved social interactions. TA can be an appropriate psychological career for mental health care and an effective way to enhance happiness in people's lives. In dealing with problems, TA approach helps individuals to control, to some extent, their emotional responses and follow their logical thinking instead of following others. Confronting difficult situations, people with high emotional reactivity cannot use their cognitive abilities. High emotional reactivity and impulsivity are among the characteristics of the "child inside" (Child ego state) that can be controlled by using the techniques and exercises of the theory of TA. Employing these techniques helps activate the Adult ego state and control the Child state's reactions, thoughts, habits, and behavior patterns. It seems that training effective communication skills enables nurses to identify their own and others' patterns of behavior. Through proper attention to verbal and non-verbal clues, nurses will be able to communicate effectively, activate their Adult ego state, and use the Child and Parent ego states whenever the situation needs them. Finally, by keeping the balance of the different ego states, one can benefit from high mental and emotional well-being in different situations of life.[24,25]

One of the limitations of this study was the existence of uncontrollable variables including nurses' psychological characteristics and cultural backgrounds, which may have affected the learning and performance of the participants in the study. Another noticeable limitation lies in the data collection approach. The lack of a follow-up and the method of data collection (which was only through questionnaires) are among the shortcomings

and limitations of the present study.

The study has several implications for the nursing profession. TA is a controllable factor that can be improved through intervention and instructional approaches. It is suggested that the TA method be taught to nurses in the form of on-the-job training classes and courses to help them improve and sustain their mental health. TA should be taught in such places as health centers, community centers, and family courts.

Conclusion

This study highlights the importance of TA training in stressful professions such as nursing. It also reveals that TA training can enhance the mental health of nurses effectively. The comprehensive construct of TA has some central tenets. It is a communicational theory which is about how people communicate. It is also a theory of personality, a systematic approach to the psychotherapy of personal growth and change. Furthermore, it is a relational method for analyzing and understanding one's behavior, acquiring awareness, and accepting responsibility in different situations of life.

Conflict of Interests

Authors have no conflict of interests.

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