A Review of the Effectiveness of Facing the Scientific Indicators of Depression Reduction among the Nurses Working in the Hospitals of Bandar Abbas

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ABSTRACT

This research was carried out with the aim of studying the effectiveness of facing the scientific indicators of happiness on reducing depression in nurses working at Bandar Abbas hospitals. The study is a quasi-experimental research conducted based on pretest-posttest design with control group. The statistical population of research consisted of 60 individuals (30 in experimental group and 30 in witness group) who were randomly selected by reduplication method. In order to conduct the research Beck depression inventory was administered as pretest to evaluate the extent of depression. In order to study the research hypotheses, 60 nurses scoring high on depression were randomly selected and placed in control and experimental groups. In the next stage, the questionnaires related to three scientific indicators of happiness, namely forgiveness, gratitude, and kindness were administered in experimental and control groups to assess these three indicators in both groups. In the fourth step, the experimental group received 2-hour training for 7 sessions on the three scientific indicators of happiness, i.e. forgiveness, gratitude, and kindness. Three sessions of free discussion were held in control group. The posttest of depression, forgiveness, gratitude and kindness was administered for both groups upon completion of training sessions. The analysis of mean differences using mean and covariance of pretest and posttest scores showed that giving unconscious visual and aural auditory stimuli to the subjects had no significant influence on reducing depression in the short term. Training on unconditional forgiveness, gratitude, and kindness had a significant influence on reducing depression in nurses ($p=0.001$).
KEYWORDS: the scientific indicators of happiness, depression, forgiveness, gratitude, unconditional kind deeds.

INTRODUCTION

Depression is a common disorder in human communities and causes a variety of individual and social injuries. Depression is in fact a mental disorder in which the individual's mood is disrupted leading to impacts on his/her social surrounding. Almost everyone experiences at least mild depression. Nurses are most susceptible to the disorder due to their status and workplace. Symptoms of depression include, among others, depressed mood, reduced interest or pleasure, weight loss or gain, insomnia or hypersomnia, fatigue or lost energy, uneasiness, feeling worthless, lost concentration, recurring death thoughts [1]. Recently an approach called positivist psychology was introduced believing that the individual's positive features can be used to treat their psychological symptoms [2]. In this area of psychology the focus is more on identifying and nurturing the specific aspects such as positive emotions which contribute to increased individual and social growth [2]. Researchers have found that health and happiness are most often accompanied by the positive emotions replacing the negative emotions [3]. A study showed that positive psychological practices given to the individuals through the web reduced the symptoms (feeling sad, lack of pleasure and hopelessness) for at least six months [2]. Studies demonstrated that using such indicators as forgiveness, gratitude, and caring deeds would increase positive emotions in the individuals (sick or healthy) [4]. Additionally, extensive studies proved that nurses have a high degree of depression [5].

Nursing is among the jobs which have always been facing its specific problems. Despite drafting and ratifying of all bills, the laborious job has always put the nurses in a dilemma of whether or not to stay in the job. Depression and stress are common problems of nurses. It seems that compared to other jobs, nursing has a high burden of stress and mental pressure specific to this job [5]. Accordingly it seems mandatory to identify and reduce the effective scientific indicators of reducing nurses' depression.

The studies indicated that happy people have highly satisfactory ties with their friends, family members, and spouses. Moreover, they have more positive emotions and less negative emotions in their everyday life, they are more extrovert and sociable, show lower neurotic symptoms (anxiety and depression) and obtain lower scores on various indicators of mental pathology [6]. As such nurses are in need of more positive emotions, extraversion, and sociability due to the nature of their job and their relationships with the patients.

In a collaborative research work, Perkins [7] studied religiosity, forgiveness, happiness, and well-being in a non-clinical sample of university graduates. The research results proved that forgiving oneself and the others simultaneously reduces mental pressure, improves personal health, and reduces unhappiness. Forgiving oneself has particularly a high effect in reducing mental depression symptoms and an indirect effect in well-being and happiness. This indirect effect is because forgiving oneself exposes the individual to forgiving others. On this basis in this research the effectiveness of facing the scientific indicators of happiness on reducing depression of nurses working in Bandar Abbas hospitals were studied.

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RESEARCH METHOD

This study is an applied research conducted quasi-experimentally. The research type is quasi-experimentally, because the researchers didn't use random assignment for placing subjects in control and experimental groups. The statistical population of research consisted of all nurses working in Bandar Abbas hospitals. The research statistical sample consisted of 60 nurses (30 in experimental groups and 30 in control group) that selected by random sampling. The following questionnaires were used in this study:

- Beck depression inventory where the scores are between minimum 0 and maximum 63 and scores 40 or 50 indicate severe depression. From clinical terms, the depressed individuals and non-sick maladaptive individuals score between 12 and 40. BDI-II shows a steady high internal consistency coefficient of 0.89 to 0.94 in various populations [8]. Cronbach's alpha coefficient (0.91) was used in order to calculate the Beck depression reliability coefficient in this research [8].
- Gratitude questionnaire (GQ-6): this questionnaire includes 6 statements and specifies the extent of gratitude through scoring these statements. It was designed by Bono and associates and has far been used in several studies [9]. Its internal validity scale is between 0.82 and 0.87. In this research, the reliability of this questionnaire was 0.76 which was calculated through Cronbach's alpha coefficient.
- Kindness questionnaire: this questionnaire assesses the emotional, cognitive and behavioral level and includes 3 items- motivation, cognition, and behavior. The questionnaire was devised and administered by Otake *et al.*[10]. It has a good internal validity and its alpha is between 0.73 and 0.77. The Cronbach's alpha coefficient was estimated 0.73 in order to assess the reliability of the questionnaire.
- Kindness scale: it is a 12-item scale of interpersonal motivations associated with injury (TRIM-12). It is a self-assessment tool to assess the motivations of forgiveness, including avoidance and revenge. The reliability of questionnaire was 0.85 for revenge, 0.91 for avoidance, and 0.92 for the whole questionnaire. The validity of the questionnaire was 0.57 and 0.59 for revenge and avoidance respectively. This questionnaire was found valid and reliable for the research works related to forgiveness. The reliability of this questionnaire was 0.94 through calculating Cronbach's alpha coefficient [8].

Tutorial package on the happiness scientific indicators: the trainings on the scientific indicators of happiness, including gratitude, kindness, and forgiveness, were arranged based on the works of McCullough et al. [11]. In the beginning of the training session on gratitude, the benefits of gratitude were described based on the results obtained from research works. The results of research pertaining to the mental and social impacts were also stated. Then the subjects were asked to express their experiences on gratitude and describe the mental and social effects of appreciative behavior. Then the subjects will be assigned with exercises to strengthen gratitude during the training sessions. In these exercises, the subjects had to note 5 events or things, for which they are grateful each day, count the God's blessings once a day and write down the number of blessings. They were also asked to write a letter to and appreciate a person to whom they feel indebted and make a note of the mental and social effects of such act and discuss it in next session. For analysis of data, descriptive statistics such as mean and standard deviation and inferential statistics such as covariance were used. Before the study began, the aim of the study was explained to participants and they were informed about their right to participate or not to participate in the study. Also, to ensure compliance with ethical issues, letter of approval for implementing the study was obtained from Hormozgan University of Medical Sciences.

RESULTS

The results proved that research data was normal. A review of depression, affectionate deeds, forgiveness and gratitude of nurses before receiving the training showed that there was no significant difference between control and experimental groups in all mentioned variables. These results are presented in table 1.

Table 1: The Results of Independent t-test of dependent variables in Nurses of Control and Experimental Group before Training

Variables	Group	Mean	Standard deviation	t	p
Depression	Experimental	43.6	0.765	0.298	0.3
	Control	42.3	0.364		
Affectionate deeds	Experimental group	48.32	0.169	1.762	0.7
	Control group	53.82	0.231		
Forgiveness	Experimental group	22.65	0.839	0.673	0.8
	Control group	22.18	0.647		
Gratitude	Experimental	18.47	0.625	1.217	0.2
	Control	19.29	0.376		

The results of covariance test of facing affectionate deeds on reduced depression of nurses showed that the mean of depression in experimental group was 32.4 after training. The mean of depression of control group was 41.8. Taking into account F=7.34 and p=0.01, the results indicated that facing the affectionate deeds indicator had a significant influence on reducing depression of nurses. The results also proved that facing the affectionate deeds indicator was effective in reduced depression in nurses up to 35%.

Table 2: Covariance Analysis of the Effect of Facing the Affectionate Deeds Indicator on Reduction of Depression

	Mean	Standard deviation	Number	df	F	p	Proportionate coefficient
Experimental group	32.4	0.367	30	1	7.34	0.01	0.35
Control group	41.8	0.624	30				

The results of covariance test of teaching the scientific indicators of happiness on increased affectionate deeds of nurses showed that the affectionate deeds average of experimental group was 75.26 after training. The affectionate deeds average of control group was 62.34. This indicated that teaching the scientific indicators of happiness had a significant influence on increased affectionate deeds of nurses taking into account F=9.275 and p=0.001. The results showed that teaching the scientific indicators of happiness influenced the increase in affectionate deeds of nurses by 62%.

Table 3: Covariance Analysis of the Influence of Teaching Happiness Indicators on Increased Affectionate Deeds

	Mean	Standard deviation	Number	df	F	p	Proportionate coefficient
Experimental group	75.26	0.362	30	1	9.275	0.001	0.62

The results of covariance test of teaching the scientific indicators of happiness on increase of forgiveness in nurses showed that the mean of forgiveness of experimental group after training was 48.12. The mean of forgiveness of control group was 32.33. Taking F=24.3621 and p=0.001, this indicated teaching the happiness scientific indicators has a significant influence on increased forgiveness in nurses. The results also indicated that teaching the happiness scientific indicators increased forgiveness in nurses by 68%.

Table 4: Covariance analysis of the influence of teaching happiness indicators on increased forgiveness

	Mean	Standard deviation	Number	df	F	p	Proportionate coefficient
Experimental group	48.12	0.428	30	1	24.3621	0.001	0.68
Control group	32.33	0.731	30				

The results of covariance test of teaching the happiness scientific indicators on increasing gratitude in nurses showed that the gratitude mean of experimental group after training was 28.14. The gratitude mean in control group was 21.76. As F=18.673 and p=0.001, this indicated that teaching the happiness scientific indicators significantly influenced the gratitude in nurses. The results also showed that teaching the scientific indicators of happiness influenced the nurses' gratitude by 65%.

Table 5: Covariance Analysis of the Influence of Teaching Happiness Indicators on Increased Gratitude

	Mean	Standard deviation	Number	df	F	p	Proportionate coefficient
Experimental group	28.14	0.357	30	1	18.673	0.001	0.65
Control group	21.76	0.492	30				

DISCUSSION

This research was carried out with the aim of reviewing the effectiveness of facing the scientific indicators of happiness including unconditional forgiveness, gratitude, and kindness on reducing the symptoms of depression, such as sadness, worthlessness, and inability. The findings of research are as follows:

Teaching happiness-centered behavior, including unconditional forgiveness, gratitude, and affectionate deeds to depressed people helps them reduce their depressive symptoms. The analysis of this hypothesis using t-test of independent groups on the scores mean of subjects in two experimental and control groups showed that teaching behaviors based on the three factors of happiness, namely forgiveness, gratitude, and kindness, significantly reduced depression in experimental group.

No similar study has been carried out in our country proving the exact influence of these three components on reducing depression. The results of this research are consistent with the finds of studies conducted separately on each indicator. The research works of Ryeet al. [12] on the influence of forgiveness on anxiety and depression produced similar results as they proved the influence of forgiveness on reducing anxiety and depression. In other words, forgiveness process can reduce depression by reducing negative emotions. Studies of *Bono et al.*[9] and *Perkins*[7] showed the correlation between forgiveness and happiness and life satisfaction. The studies of Rye et al. [12] produced similar results as to this research as concerns the effectiveness of interventions on gratitude and kindness. In the center of the forgiveness process, there are elements such as kindness and sacrifice their own interests for the sake of others. Thus, this process can increase happiness and life satisfaction. The findings of these studies indicate that gratitude, thanksgiving, and kindness increase happiness in the individuals and hence reduce the depressive symptoms. The results of these studies indicate the effectiveness of trainings and practices of three indicators of forgiveness, gratitude, and kindness on reducing depressive symptoms. Relying on this

medical treatment based on positive psychological fundamentals, psychologists could repeatedly provide services based on which their abilities are focused repeatedly instead of their limitations.

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REFERENCES

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1. American Psychiatric Association2000.Diagnostic and Statistical Manual of Mental Disorders. 4th Edition, Text Revision.

2. Seligman, M. E. P., & Csikszentmihalyi, M. (Eds.). 2000. Positive psychology [Special issue], American Psychologist, 55(1).

3. Diener, E., Diener, M.,&Diener, C., 1995b. Factors predicting the subjective well-being of nations. Journal of Personality and SocialPsychology, 69(5), 851-864.

4. Peterson, C., & Seligman, M. E. P. 2004. Character strengths and virtues: A handbook and classification. Washington, DC: American.

5. Yousefi, A. Pourmiri, M. & Anaraki, E. 2005. An Investigation on the relationship Between Nursing Personnel's Confidence Building and their Job Satisfaction in Isfahan University of Medical Sciences Hospitals. Iranian Journal of Medical sciences, 586-592.

6. Bass, E., & Davis, L. 2000. The courage to heal: A guide for women survivors of child sexual abuse. New York, NY: Perennial Library/ Harper and Row Publishers, Inc.

7. Perkins, H.W. 2009. Forgiveness, religious commitment and well-being in adulthood: a life stage and cohort assessment, Presented at the 2009 Congress of the International Association for the Psychology of Religion23 to 27 August 2009 – Vienna – Austria.

8. Lyubomirsky, S. &Lepper, H.S. 1999. A measure of subjective happiness: Preliminary reliability and construct validation, Social Indicators Research 46, 137–155.

9. Bono,G., McCullough, M. E. & Root, L.M. 2002. Forgiveness, Feeling Connected to Others, and Well-Being: Two Longitudinal Studies 'In press, Personality and Social Psychology Bulletin.

10. Otake, K. Satoshi,Sh., Tanaka-Matsumi, J., Otsu,I. K.&Fredrickson, B.L. 2006. Happy people become happier through kindness: a counting kindnesses intervention, Journal of Happiness Studies,7:361–375.

11. McCullough, M.E., Emmons, R.A., & Tsang, J. 2002. The grateful disposition: A conceptual and empirical topography. Journal of Personality and Social Psychology, 83, 112-127.

12. Rye, M. S., Folck,C. D , Heim,T.A., Olszewski B.T.& Traina E. 2004. Forgiveness of an Ex-Spouse: How Does It Relate to Mental Health Following a Divorce? Journal of Divorce and Remarriage, 41(3-4).