The effect of logo therapy on improving the quality of life in girl students with PTSD

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Abstract: Natural disasters are an inevitable part of human life. The 6.6 Richter earthquake in Bam killed 26,000 and injured 30,000 people, and destroyed 85% of houses according to the literature. It is obvious that one of the main reasons for decreasing the quality of life in survived individuals is losing the meaning of life and becoming irresponsible toward it. The purpose of the study was to examine the effect of logo therapy on improving the quality of life in girl students with PTSD. Method of research was semi-experimental with control group. Procedure of sampling was purposeful in which 24 students with PTSD were selected and randomly divided into two groups. Experimental group received 8 sessions of logo therapy once a week. Tools of research were two questionnaires; A. PTSD Inventory, That is based on the DSMIV-TR criteria for PTSD. B. quality of life questionnaire. Its four subscales consist of physical health, psychological health and social relation, and environment life. The results indicate significant difference between two groups in physical health, psychological health and life environment dimensions, while there was not any significant difference between two groups in social relationship after psychological intervention t=1/70, (p<0/05).

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Introduction

Mood and depression fluctuation may be witnessed among adolescents in this transitory period for growth of the secondary sex character. Sudden changes in their physical and psychological conditions may easily trigger loss of adaptability to their societal environment (Korea Youth Research Association, 2003). By seeking the meaning and purpose of life, teens develop their own self-identity in society during puberty. In case they find answers to issues pertaining to life, they seek to gain independence, pursue goals and finally they achieve self-esteem and self-identity (Kang, 1998). However, any possible failure in exploring the purpose of life would automatically lead to a loss of confidence and would bring about depression and meaninglessness for them. The feelings may land them into a situation where they might lose optimism and could easily turn to delinquency (Cho, 2000; Choi, 2000).

A major global public health problem arises from earthquakes and their aftermath. Tremors jolt everything and everybody quickly, without any pre-warning. They are not controllable and can leave a large number of people dead or wounded in addition to torn-down buildings and other structures. In fact it is the case with any other natural disasters. After a trauma over loss of close people and loved ones, survivors are exposed to an elevated risk of experiencing psychological distress, including posttraumatic stress disorder (PTSD) (Sharan et al., 1996; Goenjian et al., 2000; Wang et al., 2000), dissociative reactions (Cardena et al., 1993), (Nolen-Hoeksema et al., 1991) and nightmares (Wood et al., 1992). Among victims of earthquake trauma, the prevalence of exposure to PTSD ranges from 13 to 95% (McMillen et al., 2000; Armenian et al., 2000). For this reason a large number of affected people are feared to develop PTSD consequences, among them impairment in relationships, work, and leisure activities (Kessler, 2000; Amaya- Jackson et al., 1999). McMillen (McMillen et al., 2000) has previously discussed Subsyndromal PTSD in earthquake survivors. He has reported intrusive symptoms and hyper arousal in 48% of survivors of the Northridge, California earthquake. There is an outstanding feature in this study, i.e. symptoms did not require to be present in each of the PTSD symptoms in his definition of a traumatic stress reaction.

On Friday 26 December 2003, the southeastern Iranian city of Bam was jolted with a strong earthquake measuring 6.6 magnitude on the open-ended Richter scale. The official fatalities figure was 26,000-plus dead and in excess of 30,000 injured. Some 75,000 people were also rendered

homeless in the trembler, which ruined most of Bam and nearby villages. Some survivors were struck with posttraumatic stress disorder (PTSD) as they lost family members and friends. The affected people mainly show symptoms such as re-experiencing, avoidance and hyper arousal. It is widely prevalent among people who have undergone one or more traumatic events, though not everyone with the experience develops the disorder (Monroe et al., 1991; Costello et al., 2002). About 8% of the population in the society are affected by PTSD (Kessler et al., 2005). The mental disorder usually stems from a chronic course and leads to significant work and social impairment. The person affected by the condition finally relies heavily on healthcare (e.g., Hidalgo and Davidson, 2000; Jaycox and Foa, 1999; Stein et al., 2000). The focus of studies in recent years has been the reasons behind the fact that the female population are at greater risk than their male counterparts for the PTSD following a traumatic event (e.g., Breslau & Davis, 1992; Brewin, Andrews, & Valentine, 2000; Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995). Moreover, several studies have shown that the likelihood for women to maintain PTSD symptoms is four times higher than males (Breslau & Davis, 1992; Breslau, Davis, Andreski, & Peterson, 1991). Implementation of exposure-based therapy, such as Prolonged Exposure, for treatment has been widely suggested in the past three decades in various studies (PE; Foa and Rothbaum, 1998; Ponniah and Hollon; Powers et al., 2010.) Eye Movement Desensitization Reprocessing Therapy also has empirical support (EMDR; Shapiro 1999), though this method has put forth some questions on methodological grounds (e.g., Taylor et al., 2003; Rothbaum et al., 2005), a number of recent reviews (e.g., Spates et al., 2009; Nathan and Gorman, 2007; Ponniah and Hollon, 2009) and meta-analyses (e.g., Bisson et al., 2007; Seidler and Wagner, 2006) conclude that EMDR is an effective treatment for PTSD. In some other studies it is suggested that cognitive therapies, including Cognitive Processing Therapy (CPT; Resick and Schnicke, 1992), also reduce PTSD symptoms (e.g., Chard, 2005; Ehlers et al., 2003; Monson et al., 2006; Resick et al., 2008, 2002). Institutes of Medicin has reviewed the body of evidence for PTSD treatments to date. In a 2008 report, it has concluded that the only efficacious approaches are those that have an exposure component with sufficient evidence. As no single intervention is universally effective, acceptable or feasible, a need for additional PTSD treatment approaches is felt in addition to the existing ones. (Bradley et al., 2005; Schottenbauer et al., 2008). Furthermore, studies on clinician attitudes toward exposure therapy hint that many therapists feel uncomfortable using these treatments (e.g., Becker et al., 2004). For this reason, the necessity for developing intervention approaches aimed at effectively treating PTSD in those who are unresponsive to the available empirically supported approaches or who prefer an alternative intervention is felt more than before. In this process, understanding predictors of treatment response and effectiveness of a certain treatment for specific individuals is of utmost importance.

Logo therapy is a therapeutic theory that focuses on humans' urge to find answers on the reasons and nature of living and promote mental health (Kim, 2007; Park, 2005). It guides the afflicted people to find the purpose and meaning of their lives which enables them to have a Responsibility to live and a liberty to enjoy (Frankl, 1988). Simply put, this intervention is a psychological, therapeutic treatment with a spiritual approach to the root causes of the disorder. Through the term "Tragic Optimism," Frankl has touched on the rudiments of logo therapy. This term defines the human ability to make success out of suffering and make meaningful action out of guilt. Frankl's school of psychotherapy directly deals with the issues of fate and freedom. Fate in Franklian psychotherapy is defined as human beings' inability to control the circumstances of lives, and in defining freedom it is said human beings can control attitudes and responses to those circumstances (Lukas 2000). For the process of treatment 3 stages have been defined by Lokus & Zwang Hirsch (2002): 1- Diagnosis 2- Treatment 3- Follow up. In the "Diagnosis" stage some data are gathered from pharmacologist's history, interview, questionnaire & mental tests. Frankl has floated the idea that there is no pure symptom in any of these cases, so we must pay attention to physical, psycho & spiritual disturbances during the process of diagnosis,. 2- In the "Treatment" stage the client sees a ray of hope that she would find an outlet to the problem. In this stage empathy and sympathy are key words for direct or indirect contact with patient. Treatment which is used for clients must be suitable for all their personal problems not only for few symptoms without considering other intervening items. Moreover, psychotherapy, meaningtherapy, and pharmacotherapy must be used simultaneously as complementary treatment lines. Aim of meaningtherapy is to complete psychotherapy not displacing it. 3-In the "Follow up" stage the issues pertaining to stressful life are dealt with after treatment is complete. We should make sure that the client learns how to tackle the pain inflicted from loss, though it is by no means sufficient. Some unexpected situations might come up in life. After the treatment stage the client should be enabled to evaluate the system and discover potential for meaning of life. They should have some options and explore a new purpose for life.

The World Health Organization defines Quality of Life as 'an individual's perception of their position in life in the context of the culture and value systems in which they live, and in relation to their goals, expectations, standards and concerns' (WHOQOL,1994). However, in terms of healthcare QOL is usually viewed from the negative effect(s) of a debilitating, life-threatening or terminal illness, natural decline in the health of an elderly person, an unforeseen mental/physical loss of a loved one, chronic, end-stage disease processes. In another research the quality of life is defined as "The degree to which a person enjoys the important possibilities of his or her life" (The University of Toronto's Quality of Life Research Unit). This research is based on the concepts of "being" – i.e. who the person is – "belonging" – i.e. how the person is connected to their

environment – and "becoming" – i.e. whether the person reaches the goals, hopes, and aspirations.

Southwick et al (2006) have examined the logotherapy as an essential psychotherapy method for soldiers who were suffering from war-related PTSD. In their studies, many soldiers with PTSD live with significant uncertainty about the meaning of their personal lives caused by suffering, self-accusation and death. Through their studies, they observed that many soldiers were willingly taking part in finding their own life's meanings after treatment.

The impact of a logo therapy education program on children with cancer has been assessed in another research (Kang, et al 2009). This study shows Logo therapy succeeded in minimizing the trauma and maximizing the meaning of life. To prevent existential distress and improve quality of life for adolescents with terminal cancer, this type of treatment has proved helpful.

Asagba 2004 discussed the application of logo therapy and effectiveness of meaning as the focal point in developing countries, where economic crises apply extra unavoidable pressure on people.

Hutchinson & Chapman (2005) also draw some parallels between Albert Ellis' Rational Emotive Behavior Therapy (REBT) and Viktor Frankl's Logo therapy and claim the two therapeutic processes are integral and the compatibility between the two models can help a client find out a reason-driven meaning. In this integrated approach "construal processes", "mechanisms of change", and "the role of courage and responsibility" have been highlighted as three main points of integration.

(Kyo 8 Suhhoo 2004) investigated the effects of Logo therapy with Exercise on the meaning of life, ego integrity and IADL's in the Elderly. The results showed it as an effective nursing intervention for the elderly.

According to numerous studies, logotherapy can be applied for addressing loss of meaning, We chose logotherapy since it directly deals with a host of symptoms and/or worldviews commonly seen in this patient population such as a sense of foreshortened future, feeling of guiltiness, survivor guilt, an external domain of control, and existential loss of meaning. Hence, it is essential to assist girl students with PTSD continue their search for the meaning of their lives.

Statistical analysis

METHOD

Participants and procedure

Research society was 24 girl students with PTSD aging 15-18 in city of Bam who have been survived the Bam earthquake. Procedure of sampling was purposeful. Individuals were randomly placed in two groups (experimental and control groups). Method of research was semi-experimental with control group. We had 8 sessions for experimental group. Each session was 1 hour. Treatment Sessions plan refers to Blair work on logotherapy (2004). this therapeutic process seeks to fill an "existential vacuum" and help survived adolescents. Some steps are involved in this process which would pave the way for identity development and amelioration of PTSD symptoms. These steps include forging ties with the client for treatment purposes; aiming to give the client a better glimpse of life; reconstructing the client's condition and introducing it as a helpful indicator that something is missing rather than an enemy; achieving meaning and perceiving it as a source of learning; and ultimately seeking to attain goals and values through the perceived meaning.

Measures

PTSD Inventory

Severity of PTSD which has been assessed by PTSD Inventory. This is a 17-item self-report scale based on the DSMIV-TR criteria for PTSD which evaluates post-traumatic symptomatology. PTSD severity was calculated according to the number of symptoms (Solomon, et al, 1993). This inventory approach was used in previous studies. It is a highly reliable measure, and has good convergent validity when compared to structured clinical interviews. The internal consistency was calculated for the current sample was high ($a = 0.91$).

Quality of life questionnaire

We had quality of life questionnaire with 20 questions. Its four subscales consist of physical
health, psychological and social relation, and environment life. Reliability was 0/78.

TABLE 1: Mean and standard deviation of two groups in Quality of life (pre-Test).

variable	Groups	N	M	SD
Physical heath	Experimental	12	8/8	3/73
	Control	12	10	4/87
Psycho logical heath	Experimental	12	10	3/29
	Control	12	8/5	4/11
Social relationship				
	Experimental	12	7/9	2/84
	Control	12	8/6	2/22
Environment of life				
	Experimental	12	9/4	4/27
	Control	12	5/6	3/56

TABLE 2: Mean and Standard deviation in Quality of life (post-Test)

variable	Groups	N	M	SD
Physical heath	Experimental	12	6/8	3/35
	Control	12	9/6	5/12
Psycho logical heath	Experimental	12	5/5	2/83
	Control	12	8/1	3/47
Social relationship				
	Experimental	12	6/2	2/2
	Control	12	8/4	2/2
Environment of life				
	Experimental	12	4/8	3/67
	Control	12	5/7	3/62

TABLE 3: T –Test to independent group (experimental and control) in physical heath

Variable	N	Differential score	Standard deviation	Error	Differential mean	T
Experimental	12	-2	2/26	0/71	-1/6	
Control	12	-0/4	0/69	0/22	2/13	

For all variables, Df= 22 and P<0/05

TABLE 4: T – Test for independent groups in psychological health

Variable	N	Different score	Standard deviation	Error	Different mean	T
Experimental	12	-4/5	1/84	0/58	-4/6	2/13
Control	12	-0/4	0/69	0/22		

For all variables, Df= 22 and P<0/00

TABLE 5:T – Test for independent groups in social relation

Variable	N	Different score	Standard deviation	Error	Different mean	T
Experimental	12	-1/7	2/66	0/84	-1/5	1/70
Control	12	-0/2	0/42	0/13		

For all variables, Df=22 and P<0/05

TABLE 6:T – Test for independent groups in environment life

Variable	N	Different score	Standard deviation	Error	Different mean	T
Experimental	12	-4/6	2/91	0/92	-4/7	5/07
Control	12	0/1	0/31	0/1		

For all variables, Df=22 and P<0/001

Results

Means and standard deviations of two groups in Quality of life scale (Physical heath, Psycho logical heath, Social relationship and Environment of life) are presented in Table 1(pre test) and Table 2(post test). As indicated there was significant difference in quality of life scale after therapeutic intervention. Table 3 presented t–test to independent groups (experimental and control) in physical heath variable. As indicated, there was significant difference between pre – post test in two groups t= 2/13, p< %5. Table 4 presented t–test to independent groups in Psychological heath variable. As indicated, there was significant difference between pre – post test in two groups t= 6/58 P<0/001. Table 5 presented t-test for independent groups in social relation variable. As indicated, there was no significant difference between two groups in social relation in pre-post test t = 1/70, P< 0/05. Table 6 presented t–test to independent groups in environment life variable. As indicated, there was significant difference between pre – post test in two groups t=5/07, p<0/001.

Discussion

Logotherapy is a kind of psychotherapy that mainly focuses on the freedom of human in life. This approach believes that humans can endure Meta pain and attain meaning of life. Hence, human are able to choose meaning because they are free and can select different option. In this light, the study's hypothesis is: One of reasons for reduced Quality of Life in earthquake-affected girls is losing the meaning of life and becoming irresponsible toward it. In direct contrast to the triangle (death, guilt, and trouble), logotherapy empowered this people and changed they attitude for their feature life. Our results show that experimental group have been recovered in 3 dimensions (physical, psychological, and environmental life), and logotherapy increased their quality of life. As a result, these girls could perceive that although they cannot differ what have happened to them, they can have a better attitude toward the accident which has affected them as well as their life. The clients managed to bring depression and anxiety under their own control and become more adaptable to their living environment. In additiona, they released victim and weakness personalities (based on Gestalt approach), and could more communicate internally. Data do not show change in social relations, and this is mostly because they were suffered from depression which causes isolation and withdrawal. Generally, it is common that healthy people when engaged in critical situations show PTSD and panic attack symptoms which could lead to isolation or even autism. Due to the result, we can claim that subjects' psycho-somatic symptoms ameliorated after training sessions. Catharsis is one of the best techniques for recovery block and denial behaviors such as defense mechanisms. In a word, the outcome states that "life has many problems, but if meaning is found we can use some positive energy to find and view the positive symptoms and dimensions of it."

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