Effectiveness of Rational Emotive Behavior Therapy on Psychological Well-Being of People with Late Blindness

**Mahin Dokht Mozaffar Jalali ·
Mir Sadjad Moussavi · Seyed Amir Amin Yazdi ·
Javad Salehi Fadardi**

Abstract   The aim of the present study was to investigate the effectiveness of Rational Emotive Behavior Therapy (REBT) on improving the psychological wellbeing of people with late blindness. The design of this study was organized into pre-test, post-test and follow-up with two groups; experimental and control. After choosing qualified individuals, they were replaced into experimental and control groups at random (30 clients in each group). Pre-test was conducted for both groups. Thereafter, the experimental group received REBT training. Both groups, took part in post-test at the end of the training course. After 1 month, follow-up test was taken. Tools such as demographic particulars, IBT questionnaire, depression, anxiety and stress 21 inventory, Eysenck questionnaire were used for gathering information of the study. All the analytical process has been done by SPSS18 program. The scores of both groups (experimental and control groups) were not different significantly in pre-test. The scores gained by the experimental group in post-test showed a significant increase compared with the pre-test result. It proved the effectiveness of REBT with experimental group. And also, in comparing post-test with follow-up experimental group no significant difference were yield. So, as a result the effectiveness interference through group training of REBT with experimental group can be evaluated as constant. In control group there were no significant difference among the scores gained in pre-test, post-test and follow up. The findings of this research indicate the effectiveness of group coaching of REBT with enhancing the indices of psychological well being of people with late blindness.

M. D. Mozaffar Jalali (✉)
Department of Psychology, Islamic Azad University, Birjand Branch, Birjand, Iran
e-mail: mahin_mozaffarjalali@yahoo.com

M. S. Moussavi
The Rehabilitation Department, Khorasan Razavi Welfare Organization, Mashhad, Iran

S. A. Amin Yazdi · J. Salehi Fadardi
Faculty of Educational Science and Psychology, Ferdowsi University Mashhad, Mashhad, Iran

 Springer

Introduction

Late blindness has been defined as, when a person loses his or her sight completely or to a considerable degree suddenly or gradually for any reason such as accidents, war, diseases etc. in childhood or later age (as she or he has the experience of having sight and seeing memory). Individuals with late blindness have different needs, psychological emotional condition and also different methods of training and adoptive requirements, than to the individuals who were born blind. If in case anyone loses his or her sight suddenly he or she will encounter even a harder condition compared with individuals who lose their sight gradually. It is because, people with gradual loss of sight go through blindness steadily and encounter lesser shock, thus they have a better ability to cope with the new situation.

Losing sight, causes high depression, stress, anxiety and reducing self esteem in people with late blindness and it provides the ground for development of irrational believe and thoughts in them and as a consequence, they show abnormal feelings, emotions and behavior (Davarmanesh and Barrati 2006; experimental study of experts in blind affairs in Mashhad 2012). Observation and the studies done by the researcher reiterates the abnormal psychological well being in this group of people compared with the norm of community. The severity of this abnormality depends on the time, severity, the age and the way of happening of blindness, thoughts and beliefs, the family, community, values and the cultural, social and economic status of person with late blindness and also, his or her proper and timely access to rehabilitation facilities and services and mental rehabilitation in particular (experimental study of experts in blind affairs in Mashhad 2012).

Individuals with late blindness by losing one of the most important senses find themselves hapless in doing his or her tasks which he or she used to do comfortably before. Now, they think that it is impossible to fulfill his or her tasks and goals. Therefore, they become disappointed and discouraged and increasingly depressed. The researcher's observation indicates that even those who have become blind for long time and have gone through a proper rehabilitation training course and psychologically have made rather a good progress are yet depressed. It is because they can differentiate the present situation from their previous position. Since people with late blindness have no control over their surrounding and do not receive a complete information from what goes around them, this would make them to experience fear, doubt, worry and anxiety as a whole. As their experiences occur repeatedly in their daily life the development of anxiety exceeds the communities norm. It appears as an internal characteristic. It interferes the psychological well being and personal and interpersonal functions and proper understanding of the environment and situations, rational beliefs and his behavior. Since late blind people are mostly incapable of accepting the new situation that they are face with (accepting the visual disability), and also incapable to adopt themselves with the disability and the environment, inability to establish stable personal and

interpersonal relationship and inability to interpret the events, requirements and new situations and accepting responsibilities thus they endure great amount of stress. The environmental factors can impose even more stress on late blind people, such as, improper pavements for pedestrians, lack of real understanding of their situation and abilities by others and …. This in itself can seriously disrupt their life.

These people think that they have lost over 20 essential things in their life due to the loss of vision such as goals, friends, job, income, reading and writing skills, continuing education, aspirations, playing roles and personal, social and economical independence, which make them feel worthless and vain, see themselves unable to fulfill their tasks and take on responsibility which in turn, it weaken their self esteem. On the other hand, their family members and the people around them by misunderstanding their situation and having wrong ideas about their potential abilities reiterate the wrong approach with them which ruins their self-esteem even more. The community by mistreating them and not facilitating appropriate ground for them to enjoy equal opportunities make them to underestimate themselves in respect with others and by not considering self respect and self-esteem they enjoy poor self- esteem (experimental study of experts in blind affairs in Mashhad, 2012).

Pourseyyed et al. (2010) note that blindness is a serious situation which can have impact upon the psychological balance, general order of the personality of the blind individual. But, blindness by itself, does not have impact on the personality of the blind individual. Rather, the blind person's approach under the influence of negative belief of others toward blindness make them potentially vulnerable to depression and other emotional problems.

Mostly, individuals themselves create psychological problems and disorder for themselves. Human beings are born with particular readiness and potentiality to become anxious and under the influence of cultural factors, social conditioning reinforces this readiness. Meanwhile, human beings have considerable capability to prevent his anxiety and disorder with the help of their thoughts. Thus, if we encounter with an active, orientated, philosophical and paternal method in dealing with problems of those who need help and assistance, in most cases, they give up deviant thoughts and in appropriate behavior and emotions, they will attempt to make a considerable changes in their pathogenic beliefs, and they will recover as a consequent (Shafiaa abadi and Naseri 2010).

So, it necessitates measures to be taken toward enhancing psychological well being of late blind individuals. In this respect, the role of psychotherapy and rehabilitation is so distinct. The aim of psychotherapy is to help individuals to make changes in their behaviors, beliefs, emotions and their other personal characteristics in the way that the participants consider it as desirable (Prochaska and Norcross 2008). The experimental studies indicate that since, in the process of rehabilitation trainings the role of mental rehabilitation is so poor, thus, it does not try to bring about changes in the irrational beliefs of late blind people scientifically.

Ellis as an initiator of Rational Emotive Behavior Therapy (REBT) believes that problems and the anxieties of anyone stem from his or her irrational thoughts. Therefore, he suggested that we must take most advantage of education, reasoning and logic clear and direct guidance, so, we can replace rational and most logical thoughts with the irrational thoughts and make the client free from them. School of

REBT thoughts believe that human being is rational and logical being and at the same time, he or she is irrational and illogical being. When his or her thoughts and behaviors are rational he or she becomes a happy, capable, efficient being (Shaffiaa Abadi and Nasseri 2010). REBT is a multidimensional and guider approach, which takes advantage of cognitive, emotional and behavioral technique. According to REBT approach, clients' problems do not arise from events, but, it is due to irrational beliefs illogical musts necessitating demands about the events which led to self destroyer emotions and inefficient behavior and prevent individuals in fulfilling their objectives. REBT believes that, if one can accept the responsibility of one's emotional problems and challenges with one's irrational beliefs in an effective manor, as a result, one's self destroying anxieties will be diminished and it will provide the opportunity for increasing happiness and self satisfaction in one's life (Khodabakhshi kolaee 2011).

There have been many researches done on the impact of REBT approach upon the psychological wellbeing items both in Iran and abroad, which they all have had positive results. Ellis (2002) suggests that, so far many controlled studies on the effectiveness of Rational Emotive Behavior, have been published, which most of them have had positive impacts. He also, indicates that "REBT and Cognitive Behavior Therapy all have had unique experimental findings and they were all effective for most clients" (the same source, p11). The studies done on the impact of REBT on psychological well being in Iran and abroad are as follows:

Ellis's meta analysis studies (1975) about the advantages of Rational Emotive Therapy on 475 researches upon 25,000 clients, and Lyons and Woods meta analysis (1991),which has indicated the effectiveness of REBT of 0. 95. Also, the meta analysis study of Engles et al. (1993) which was conducted on 28 controlled researches, indicated the advantages of REBT with medication method and without medication. In meta analytical 19 studies on the effectiveness of REBT on 1,021 children and youths (Gonzalez et al. 2004) the rate of impact was scored 0.50. Zaraa et al. (2007) in relation with the impact of REBT on changes in emotions style; Ellahifar and others study (2007) in relation with reducing anxiety; Shahandeh and Saffarzadeh (2010)The impact of REBT on the reduction of examination anxiety; Sadeqi et al. (2002) in relation with the impact of REBT on reducing aggression; Nahidpour study (2003) about the impact of REBT on the adaptiveness of blind students and also some other studies such as Banks and Zionts study (2009), Beshop's study (2000), Macduff and Driden study (1998);Warren study (2013) which have been done, indicate the positive impact of REBT on psychological well being. Studies indicate that not only there has not been any research done on the impact of REBT on late blind individuals, but, in fact, there has not been any research done on late blind people, except with the studies done on blinds veterans, which this group of blinds have their own special problems and situations that differ from other groups.

Considering the problems that late blind people are faced with, the present study has tried to answer this question, whether REBT can bring about any changes in the irrational beliefs and approaches of late blind individuals? And can this change have any positive impact on their psychological well being? Thus, according to the studies done on the effectiveness of irREBT coaching, it would be expected that,

this training could bring about considerable changes in the irrational thoughts and beliefs of late blind people and this change in their approach could have the significant role in improving their psychological well being. In this study, factors regarding psychological well being such as depression, anxiety, stress and self-esteem were discussed and analysed.

Methods

The design of this study has been organized into pre-test, post-test and follow-up with two groups; experimental and control. Statistical universe includes 1,300 late blind individuals male and female aging 20–40, city of Mashhad-Iran.

Statistical sample of the study, 60 persons, clients available in blinds rehabilitation and training centre and blinds NGOs of Mashhad, were chosen and randomly replaced into two groups (experimental and control) each group 30 person. The age of most of the clients was 20–30 years old.

Measures

The following standardized tests and tools were employed:

Jones Irrational Beliefs Questionnaire (1968)

This scale is constructed by Jones in 1968 to measure and evaluate the irrational beliefs and includes 10 subscales and 100 items. Each subscale is related to one of the irrational beliefs which are: Demand for Approval (DA), High Self Expectation (HST), Blame Proneness (BP), Frustration Reactive (FR), Emotional Irresponsibility (EI), Anxious Over concern (AO), Problems Avoiding (PA), Dependency (D), Hopelessness Changes (HC) and Perfectionism (P). Scoring of the test is done on a five-point rating scale from "1" (very agree) to "5" (very disagree). Scoring for some of the items is reversely. Various studies confirm the result of this test and show that the cronbach alpha of the test is 0.71. This test has also an acceptable validity and consistency. Jones has observed the test–retest reliability to be 0.92. (Pasha Sharifi et al. 2008).

The Inventory of Depression, Anxiety, Stress (DASS21)

The scales of depression, anxiety and stress (DASS) which was constructed by Lovibond and Lovibond in 1995a, b. This scale is in two forms. Short form including 21 items, which measures each subscale of mental constructions depression, anxiety and stress by seven various items. The long form includes 42 items which each subscale of mental constructions is measured by 14 items. Lovibond and Lovibond (1995a, b) in large sample of 717 students have shown a high correlation between Beck's depression inventory and DASS scale (r = 0.4). The validity of Short form including 21 items was confirmed by Sahebi with Iranian population. In this study the internal consistency of DASS scales was calculated by

Cronbach alpha and these results were found: depression 0.77, anxiety 0.79 and stress 0.78 which this amount of internal consistency approximately is equal to the internal consistency of the main version DASS21 (The internal consistency calculated by Lovibond and Lovibond 1995a, b, for a sample of 717 persons were as follow; depression 0.81, anxiety 0.73 and stress 0.81). The validity of this study have been investigated in two ways; factor analysis and validity criterion. This study has shown the validity and reliability of Persian version of DASS21 as acceptable and it can be employed in research and clinical works (Sahebi et al. 2005).

Eysenck's Self Esteem Inventory

This questionnaire which was constructed by Eysenck in 1976 has been used to measure self esteem. This inventory consisted of 30 questions in three choices yes, no and no respond with question mark. Pasha Sharifi et al. (2008) have reported the findings of studies done on this inventory in Iran as; one of the finding suggest reliability of coefficient Cronbach alpha method for each of high school grades equals to 0.87, 0.81, 0.87 and 0.77, also in other study it was calculated this coefficient with the Cronbach alpha method 0.79. In further study the correlation between scores of Cooper Smith self esteem questionnaire and scores of Eysenck self esteem inventory was calculated and it indicated this correlation equal to 0.59 and other study indicated the correlation equal to 0.83.

Procedures

At first, pre- test was conducted for both groups. There after, the experimental group received REBT training. Both groups (experimental and control groups), took part in post-test at the end of training course. And also, after 1 month, follow-up test was taken. It must be noted that the participants were administered the measures in a group.

Given data were analyzed by T test. All the analytical process has been done by SPSS18 program.

Results

As a result of the interventional training therapists who knew most of the participants and were familiar with their problems observed a tremendous changes in the participants beliefs and behaviors. They have now a better psychological well being and more comfortable life style (as indicated in the tables and the figs). Most of them are enjoying a relatively normal life, after receiving the treatment. It must be noted that, non of the clients received any placebo treatment. The participants and their families appreciated the effectiveness of REBT. Even, after the completion of the study, therapists were asked to continue few more sessions by the clients.

Data in Table 1 indicates that, there was no significant difference between the mean of irrational beliefs of subscales, in pre-test and post-test with control group (p value >0.05). But, there was a significant difference in the mean of mentioned

Table 1 Comparative study of irrational beliefs subscales with experimental and control groups at pre-test and post-test

Index	Group	Stage of measurement	N	Mean	Std. Deviation	T	p value	d
D.A	Control	Pre-test	30	34.47	7.74	0.517	0.609	0.094
		Post-test	30	34.23	6.74			
	Experimental	Pre-test	30	36.93	7.30	12.551	<0.001	2.291
		Post-test	30	20.23	5.01			
H.S.E	Control	Pre-test	30	30.10	3.72	0	1.000	0
		Post-test	30	30.10	3.72			
	Experimental	Pre-test	30	33.03	5.08	7.119	<0.001	1.299
		Post-test	30	24.00	4.23			
B.P	Control	Pre-test	30	35.43	5.39	0.625	0.537	0.113
		Post-test	30	35.20	5.10			
	Experimental	Pre-test	30	36.60	4.65	9.360	<0.001	1.708
		Post-test	30	24.53	4.79			
F.R	Control	Pre-test	30	34.97	7.82	1.404	0.171	0.265
		Post-test	30	34.20	6.98			
	Experimental	Pre-test	30	34.87	4.90	9.924	<0.001	1.811
		Post-test	30	22.87	5.02			
E.I	Control	Pre-test	30	28.90	8.47	−1.300	0.204	0.237
		Post-test	30	29.47	7.93			
	Experimental	Pre-test	30	33.13	8.00	8.754	<0.001	1.598
		Post-test	30	19.57	4.57			
A.O	Control	Pre-test	30	37.03	4.03	0.847	0.404	0.154
		Post-test	30	36.70	3.43			
	Experimental	Pre-test	30	35.20	5.58	7.947	<0.001	1.451
		Post-test	30	24.77	5.55			
P.A	Control	Pre-test	30	26.53	5.61	0.821	0.419	0.149
		Post-test	30	26.23	5.63			
	Experimental	Pre-test	30	30.67	6.32	5.723	<0.001	1.044
		Post-test	30	23.53	3.19			
D	Control	Pre-test	30	33.97	6.44	0.454	0.653	0.082
		Post-test	30	33.77	6.24			
	Experimental	Pre-test	30	35.70	5.48	7.286	<0.001	1.330
		Post-test	30	24.83	5.46			
H.C	Control	Pre-test	30	32.03	5.73	0.626	0.536	0.114
		Post-test	30	31.83	5.07			
	Experimental	Pre-test	30	33.53	5.19	7.151	<0.001	1.305
		Post-test	30	24.13	4.73			
P	Control	Pre-test	30	27.60	5.66	−1.412	0.169	0.257
		Post-test	30	28.23	4.69			
	Experimental	Pre-test	30	31.33	5.84	4.362	<0.001	0.796
		Post-test	30	25.97	3.24			

Table 2 Comparative study of irrational beliefs with experimental and control groups at pre-test and post-test

Group	Stage of measurement	N	Mean	Std. deviation	T	p value	d
Control	Pre-test	30	321.03	33.07	0.683	0.500	1.124
	Post-test	30	319.97	31.92			
Experimental	Pre-test	30	341.00	42.92	10.99	<0.001	2.006
	Post-test	30	234.43	30.99			

subscales with the experimental group in pre-test and post-test (p value <0.001). Data analysis indicates that training intervention resulted in the reduction of irrational beliefs and thoughts in the experimental group.

Data in Table 2 indicates that, in control group there was no significant difference between the irrational beliefs in pre-test and post-test (p value >0.05). But, a significant difference was found between irrational believes of pre-test and post- test in the experimental group (p value <0.001). This data therefore indicates that training intervention resulted in the reduction of irrational beliefs and thoughts.

No significant difference was observed between the irrational beliefs of subscales in post-test and follow-up in each of experimental and control groups (p value >0.05) (Table 3).

Data in Table 4 indicates that the difference in the irrational beliefs of individuals in experimental and control groups in post-test and follow-up was not statistically significant (p value >0.05). However, data in Tables 3 and 4, indicates consistency of the impact of interventional training on experimental group.

Figure 1 shows the means of irrational beliefs of each experimental and control group at pre-test, post-test and follow-up stages.

Data in Table 5 indicates that there was no significant difference between the mean of depression, anxiety, stress and self-esteem in pre-test and post-test in control group so, it can be concluded that there was no or little change in the level of depression, anxiety, stress and self-esteem in control group (p value >0.05). But, there was a significant difference in the mean of depression with the experimental group in pre-test and post-test (p value <0.001). So, it can be concluded that the interventional training resulted in the reduction of depression, anxiety, stress and increase of self-esteem in late blind individuals.

Table 6 indicates that there was no significant difference between the mean of depression, anxiety, stress and self-esteem in post-test and follow-up in each of experimental and control groups and it shows the consistency of the impact of the interventional training of REBT.

Figure 2 shows the mean of depression variable of each of the experimental and control groups at pre-test, post-test and follow-up stages.

Figure 3 shows the mean of anxiety variable of each of the experimental and control groups at pre-test, post-test and follow-up stages.

Figure 4 shows the mean of stress variable of each of the experimental and control groups at pre-test, post-test and follow-up stages.

Table 3 Comparative study of irrational beliefs subscales with experimental and control groups at post-test and follow-up

Index	Group	Stage of measurement	N	Mean	Std. deviation	T	p value	d
D.A	Control	Post-test	30	34.23	6.74	0.962	0.344	0.175
		Follow-up	30	33.50	7.16			
	Experimental	Post-test	30	20.23	5.01	−1.540	0.134	0.281
		Follow-up	30	21.03	6.13			
H.S.E	Control	Post-test	30	30.10	3.726	−0.452	0.654	0.082
		Follow-up	30	30.27	3.93			
	Experimental	Post-test	30	24.00	4.23	−0.321	0.750	0.058
		Follow-up	30	24.20	4.57			
B.P	Control	Post-test	30	35.20	5.10	0.340	0.736	0.062
		Follow-up	30	35.07	5.01			
	Experimental	Post-test	30	24.53	4.79	0.858	0.398	0.156
		Follow-up	30	24.17	5.33			
F.R	Control	Post-test	30	34.20	6.98	0.592	0.559	0.107
		Follow-up	30	33.97	7.24			
	Experimental	Post-test	30	22.87	5.02	0.872	0.390	0.159
		Follow-up	30	22.33	4.34			
E.I	Control	Post-test	30	29.47	7.93	1.564	0.129	0.285
		Follow-up	30	27.60	8.36			
	Experimental	Post-test	30	19.57	4.57	−1.779	0.086	0.324
		Follow-up	30	20.73	4.77			
A.O	Control	Post-test	30	36.70	3.43	1.029	0.312	0.187
		Follow-up	30	36.20	4.39			
	Experimental	Post-test	30	24.77	5.55	1.357	0.185	0.247
		Follow-up	30	23.93	5.54			
P.A	Control	Post-test	30	26.23	5.63	−1.657	0.105	0.305
		Follow-up	30	26.73	5.36			
	Experimental	Post-test	30	23.53	3.19	−0.590	0.560	0.107
		Follow-up	30	23.80	4.13			
D	Control	Post-test	30	33.77	6.24	1.094	0.283	0.199
		Follow-up	30	33.20	6.09			
	Experimental	Post-test	30	24.83	5.46	0.717	0.479	0.130
		Follow-up	30	24.30	4.87			
H.C	Control	Post-test	30	31.83	5.07	−0.220	0.827	0.040
		Follow-up	30	31.90	5.06			
	Experimental	Post-test	30	24.13	4.73	1.819	0.079	0.332
		Follow-up	30	23.27	4.33			
P	Control	Post-test	30	28.23	4.69	−0.791	0.435	0.144
		Follow-up	30	28.60	4.59			
	Experimental	Post-test	30	25.97	3.24	1.108	0.277	0.202
		Follow-up	30	25.37	3.87			

Table 4 Comparative study of irrational beliefs with experimental and control groups at post-test and follow-up

Group	Stage of measurement	N	Mean	Std. deviation	T	p value	d
Control	Post-test	30	319.97	31.92	0.900	0.375	0.164
	Follow-up	30	317.03	36.06			
Experimental	Post-test	30	234.43	30.99	0.469	0.642	0.085
	Follow-up	30	233.13	34.69			
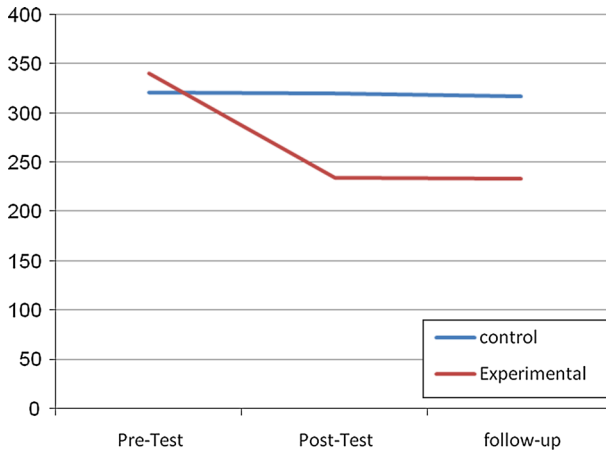
Fig. 1 The mean of irrational beliefs of experimental and control groups at pre-test, post-test and follow-up

Figure 5 shows the mean of self esteem variable of each of the experimental and control groups at pre-test, post-test and follow-up stages.

Discussion and Conclusion

Since late blind individuals by losing their sights they think that they have lost all the situations they had previously, such as their goals, independency in traveling, reading and writing, job,…, they encounter with lots of psychological problems. They can not get rid of the anxieties that they have. Whatever they do in their daily life is accompanied with lot of stress. They do not like to face with their acquaintances, so to be looked down at by them, thus, they become depressed and isolated. As they think they are not competent as before, they have low self esteem. In addition to whatever challenges that they are engaged in, their families and communities impose more problems on them unintentionally and they reinforce the irrational thoughts and beliefs in them. It must be noted that most of the late blind people are facing with stress, anxiety, depression, loneliness, being isolated, aggression and lack of psychological well being in general.

Table 5 Comparative study of depression, anxiety, stress and self-esteem with experimental and control groups at pre-test and post-test

Group	Stage of measurement	N	Mean	Std. deviation	T	p value	d
Depression							
Control	Pre-test	30	17.53	1.96	0.310	0.759	0.056
	Post-test	30	17.43	1.99			
Experimental	Pre-test	30	16.40	2.94	17.42	<0.001	3.181
	Post-test	30	4.23	3.91			
Anxiety							
Control	Pre-test	30	12.70	3.35	−0.724	0.475	0.132
	Post-test	30	12.87	3.20			
Experimental	Pre-test	30	12.03	3.50	12.79	<0.001	2.335
	Post-test	30	2.23	2.28			
Stress							
Control	Pre-test	30	17.70	1.91	−0.796	0.433	0.145
	Post-test	30	17.87	1.45			
Experimental	Pre-test	30	15.93	2.63	14.70	<0.001	2.684
	Post-test	30	6.60	2.78			
Self esteem							
Control	Pre-test	30	14.23	4.61	0.594	0.557	0.108
	Post-test	30	13.91	3.52			
Experimental	Pre-test	30	14.48	3.47	−10.39	<0.001	1.897
	Post-test	30	23.93	3.83			

Experimental studies show that most of them even after receiving rehabilitation training were still encountered with lots of challenges, and they cannot get rid of their irrational thoughts and beliefs. The present study, was conducted with the purpose of whether, the REBT group coaching can be effective on enhancing the psychological well being of late blind people. Group coaching centered on changing the irrational beliefs and emphasized on accepting blindness, adopting with new situation, not regarding blindness as catastrophic, not denying blindness, not responding to irrational beliefs, not considering other peoples approvals as important, not caring about other people's undesirable behavior, not being dependent on others, not blaming oneself, not having high expectation from oneself. All participants were encouraged to be active in the group and take part in discussions. Participants tried to talk about their experiences, in the group, after putting into practice whatever they had learnt in previous sessions. This in turn, would have a great influence on other participants in changing their irrational beliefs. As a consequence of gradual progress made by the participants, lesser stress, anxiety and depression was observed in them, and they seemed to be happier and optimistic about future. By accepting the new situation and their sight problems, they no longer were worried about the issues that used to be bothering for them. By getting a realistic look at life, they were able to make a positive change in their

Table 6 Comparative study of depression, anxiety, stress and self-esteem with experimental and control groups at post-test and follow-up

Group	Stage of measurement	N	Mean	Std. deviation	T	p value	d
Depression							
Control	Post-test	30	17.43	1.99	−1.557	0.130	0.284
	Follow-up	30	17.87	1.73			
Experimental	Post-test	29	4.31	3.96	−2.182	0.038	0.405
	Follow-up	29	5.28	3.26			
Anxiety							
Control	Post-test	30	12.87	3.20	−0.597	0.555	0.108
	Follow-up	30	13.00	3.33			
Experimental	Post-test	29	2.21	2.32	0.177	0.861	0.032
	Follow-up	29	2.17	1.92			
Stress							
Control	Post-test	30	17.87	1.45	−0.660	0.514	0.120
	Follow-up	30	18.00	1.93			
Experimental	Post-test	29	6.48	2.76	1.645	0.111	0.305
	Follow-up	29	5.69	3.88			
Self esteem							
Control	Post-test	30	13.91	3.52	1.007	0.322	0.183
	Follow-up	30	13.71	3.53			
Experimental	Post-test	29	23.93	3.83	0.829	0.414	0.151
	Follow-up	29	23.55	4.03			
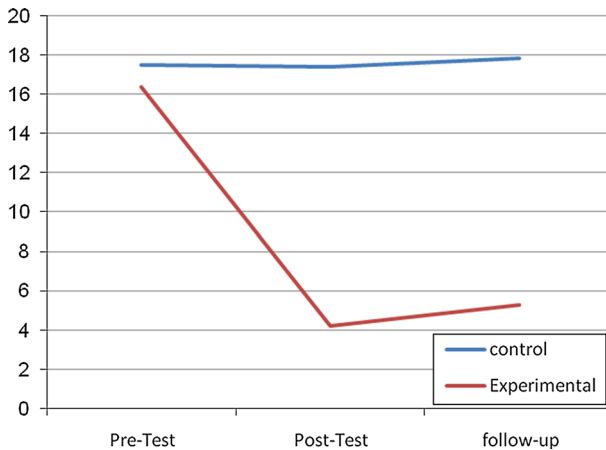
Fig. 2 The mean of depression of experimental and control groups at pre-test, post-test, follow-up

psychological well being indices. It is important to mention that at the end of the training participants celebrated for their success. They called this celebration "celebration of change".
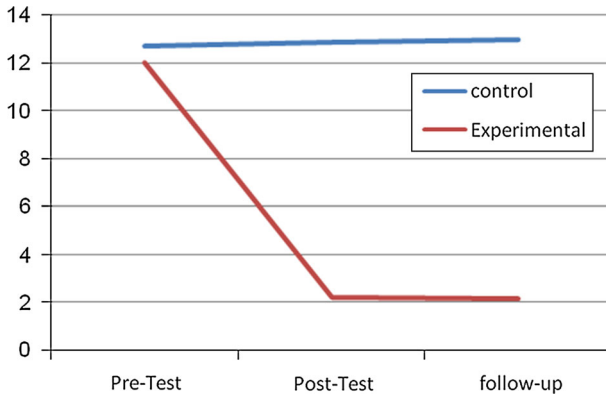
Fig. 3 The mean of anxiety of experimental and control groups at pre-test, post-test, follow-up

Fig. 4 The mean of stress of experimental and control groups at pre-test, post-test, follow-up
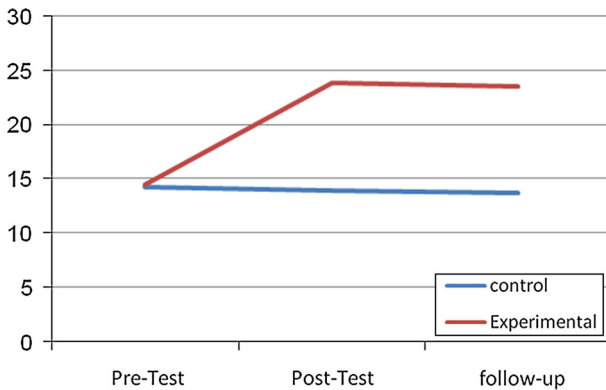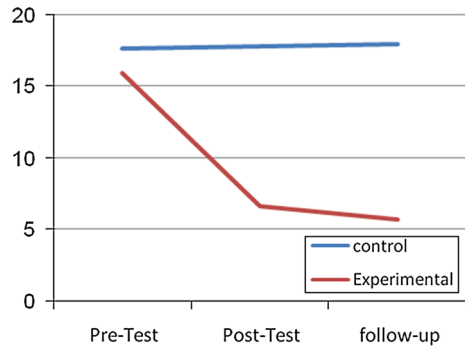

Fig. 5 The mean of self esteem of experimental and control groups at pre-test, post-test, follow-up

The findings of the present study also show that the impact of training of REBT on individuals in experimental group has resulted in the change in their irrational thoughts and beliefs has led to reduction in the level of depression, anxiety and

stress and increase in their self esteem. As the reduction in depression, anxiety, stress and the increase in self esteem in post-test compared with pre-test indicates, to be highly significant (p value <0.001) however, the difference in the means of the mentioned variables in post-test and follow-up statistically is not significant. This comparison indicates the consistency of the interventional training. In comparing the irrational beliefs of the individuals in control group in pre-test and post-test and also, post-test and follow-up, statistically significant change was not evident, which indicates that the control group has not received REBT training. As the individuals of this group are maintaining irrational beliefs, thus, they suffer from high depression, anxiety, stress and low self esteem. Therefore, it can be concluded that, the REBT training has been effective in reduction of depression, anxiety, stress and in the increase of self esteem of the participants and it support the hypotheses of the present study.

This study has been encountered with some limitations. Such as; not all the participants had sufficient skills in reading and writing Braille. Some of them were partially sighted and they were only able to read and write just by using low vision aids. And few of them had to be helped by sighted people to respond to the questionnaires. This variation in reading and writing skills made even more difficulties in conducting the study. Moreover, some of the participants were high school graduates, and a few of them were high school under graduates and the rest were university students and graduates which this variation in level of academic achievements among member groups brought about some problems in pursuing the study. Lastly, considering the importance of the role of the families of blind and low vision individuals in developing and enhancing depression, anxiety, stress and in the reduction of self esteem in them it would be suggested that participants and their families to receive REBT group training simultaneously but in a separate group. According to the experience gained in this study, in order to make it even more efficient and effective, it would be suggested to employ two educators, one of them should be preferably expert in blinds rehabilitation and training (preferably he or she should be blind or partially sighted). We also strongly suggest that REBT group training to be included in the process of rehabilitation and training schedules for blind and low vision individuals and particularly for people with late blindness.

References

Banks, T., & Zionts, P. (2009). REBT used with children and adolescents who have emotional and behavioral disorders in educational setting. *Journal of Rational Emotive and Cognitive-Behavior Therapy, 27*(1), 51–56.

Bishop, F. M. (2000). Helping clients manage addictions with REBT. *Journal of Rational-Emotive and Cognitive-Behavior Therapy, 18*(3), 127–151.

Davarmanesh, A., & Barrati, F. (2006). *An introduction to the principles of rehabilitation of people with disabilities*. Tehran: Roshd.

Ellahi Far, H., Shaffiaa-Abadi, A., & Ghamari, M. (2010). The Effectiveness of group counseling by Elliss rational emotive approach on the reduction of examinations anxiety. *The Journal of Behavioral Science, 2*(5), 9–20.

Ellis, A. (1957). Outcome of employing three techniques of psychotherapy. *Journal of Clinical Psychology, 13*, 344–350.

Ellis, A. (2002). *Nothing can make me miserable yes nothing*. Firozbakht, Mehrdad, Aarfani Vahideh. Tehran: Rasa Institute.

Engels, G. L., Gornefski, N., & Drekstra, R. F. W. (1993). *Efficacy of rational-emotive therapy: A guidelines from the international society for traumatic stress studies*. New York: Guilford.

Gonzalez, J. E., Nelson, J. R., Gutkin, T. B., Saunders, A., Galloway, A., & Shwery, C. (2004). Rational emotive therapy with children and adolescents: A meta—analysis. *Journal of Emotional and Behavior Disorders, 12*, 222–235.

Khodabakhshi Koolaee, A. (2011). *Application of counseling and psychotherapy theories in rehabilitation of disabled*. Tehran: Danjeh.

Lovibond, S. H., & Lovibond, P. F. (1995a). The structure of negative emotional states: Comparison of the depression anxiety stress scales (DASS) with the beek depression and anxiety inventories. *Behavior Research and Therapy, 33*, 335–343.

Lovibond, S. H., & Lovibond, P. F. (1995b). *Manual for the depression anxiety stress scales* (2nd ed.). Sydney: Psychology Foundation.

Lyons, L. C., & Woods, P. J. (1991). The efficacy of rational—emotive therapy: A quantitative review of the outcome research. *Clinical Psychology Review, 11*, 357–369.

Mcduff, A., & Dryden, W. (1998). REBT and emotional. A role-play experiment using a shame/disappointment scenario to investigate the effects of rational, irrational and indifference beliefs on inferences and action tendencies. *Journal of Rational-Emotive and Cognitive-Behavior Therapy, 16*(4), 235–254.

Nahidpour, F. (2003). *Enhancing the compatibility of blind girl students through group counseling with rational emotive behavior approach*. Master Degree Thesis of Psychology, University of Alzahra.

Pasha Sharifi, H., Hossaini, N., Ahghar, G., Akbari, A., & Sharifi, N. (2008). *Psychology, counselling, educational science and sociology research inventories*. Tehran: Soukhan.

Pourseyyed, S. R., Habibollahi, S., & Faramarzi, S. (2010). The effectiveness of life skills educational program on blind and low—vision university students compatibility. *Iranian Journal of Educational Strategies, 3*(1), 7–11.

Prochaska, J.O., and Norcross, J.C. (2008). *Systems of psychotherapy -A Trans Theoretical Analysis*. Seyyed Mohammadi Yahya, Tehran: Ravan.

Sadeghi, A., Ahmadi, S. A., & Aabedi, M. R. (2002). The study of the effectiveness of group training of controlling anger through rational emotive behavioral approach on the reduction of aggressiveness. *The Journal of Psychology, 6*, 1.

Sahebi, A., Asghari, M. J., & Salari, R. S. (2005). *Iranian Psychologists Quarterly, 4*, 299.

Shaffiaa-Abadi, A., & Nasseri, G. (2010). *Theories of counseling and psycho- therapy*. Tehran: University Publishing Centre.

Ustadan, M., Soudani, M., & Mehrabi Zadeh Honarmand, M. (2009). The effectiveness of group counseling through Ellis's rational emotive behavior approach on examination anxiety and self-esteem of 3rd grade of guidance school girl students in Behbahan. *The Journal of Study of Training and Learning of Shiraz University, 1*(2), 1–18.

Warren, M. J. (2013). School counsellor consultation: Teachers' experiences with rational emotive behavior therapy. *Journal of Rational Emotive and Cognitive Behavior Therapy, 31*, 1–15.

Zaraa, M., Shaffiaa Abadi, A., Pasha Sharifi, H., & Navabi Nezhad, S. H. (2007). The effectiveness of group therapy rational emotive behavior and psychotherapy in changing in the style of showing emotions. *Iranian Psychologists Quarterly, 4*(13), 25–41.