

# Effectiveness of Acceptance & Commitment Therapy on Quality of Life in Elderly People with Age- Related Macular Degeneration Disease<sup>#</sup>

Ziba Barghi Irani<sup>\*1</sup>; Hossein Zare<sup>2</sup>; Zohreh Pirhayati<sup>3</sup>; Seiede Kimia Kiarad

## Abstract

**Objective:** The goal of the present research is to determine the degree of the efficiency of group approach of ACT on the life quality of elderly people suffering from ARMD.

**Method:** The research is a semi experimental study with the pre, post-test and experimental and control groups. The research population was the aging men and women suffering from ARMD selected from Karaj Nour-e-Didegan Ophthalmology Clinic. The sample of the research was 28 people were chosen through random sampling method and divided into two experimental and control groups. The program of approaching based upon therapy through ACT in the collective form within 8 sessions of 120 minutes.

**Results:** The results were analyzed by studying the ANOVA with repeated measure and LSD and the result showed a significant meaning of the efficiency of ACT on sub scales of the life quality, physical sanity and psycho sanity. But no significant meaning was achieved to affirm the efficiency of ACT upon the environmental sanity. These effects did not persist on the process of follow- up.

**Conclusion:** With regard to the research findings, one can employ ACT to improve life quality of the aged people who suffer from ARMD.

**Keywords:** ACT, quality of life, elderly, ARMD

## Introduction

Since aging is one of the inevitable phases of life and also the final phase of man's evolution (Alipoor, Dajadi, Forozan, Biglarian, Jalilian, 2011); the augmentation of the life term and the issue of their dexterity has raised a serious question

(Niksirat, 2005). In the recent years one of the measurable factors to determine the sanity needs and sanity circumstances is life quality. According to the definition of WHO, the life quality is man's understanding of his own situation from the view of culture, value system, goals, expectations, criteria as well as his priorities. Therefore these factors are considered personal wick are not distinguishable by others and mainly relies

on the personal understanding of their own various aspects of life (Van Wichert 2008). The

1- Assistant Professor at department of psychology- Tehran Payam-e-Noor University

2- Professor at Department of Psychology-Tehran Payam-e-Noor

3- The Chief Author of Master dissertation in Clinical Psychology at Tehran Payam-e-Noor University

4- Ph.D in University Islamic Azad, Damghan, Iran

\* Corresponding author :MA in Clinical Psychology -Tehran Payam-e-Noor University. Email: Kimia2010@gmail.com

# This article is extracted from Master dissertation of the Corresponding author in Clinical Psychology

most important aspect of the elderly sanity relates to their daily activities and the continuation of their life in active form.

Getting old intensifies the disorder of physical activities, and consequently, negatively decreases their ability of being independent and increases their need for help (Barry, 2000). Today the improvement of sanity of the handicapped people is regarded as a rehabilitation goal (Bullinger, 1991). The blind and semi blind people are among the handicapped people. According to the WHO (1995) the ratio of blindness among the people from the age of neonates upon 14 is 8 per 10000 people and by the rise of age the ratio will rise too; in such a way that the people who are at 60 are at risk blindness and semi blindness (Thylefors & Negrel, 1999). During the last decades there has been a lot of interest in the issues and challenges the blind people encounter. Recent studies have shown that there is a direct relation between the appearance of sight deteriorating diseases and the rise of age (Smith, 2010). In the developing countries most of the causes of blindness and semi blindness are cataract, glaucoma, retina diseases and infective diseases, while in the developed countries the sight disorder mostly originates from ARMD, retinopathy, and diabetic diseases (Al-Bdourf, Al Till, & Abu Khader, 2002; Weil, Van View Klik, Mccarty, & Taylor, 2000).

The most common reason for irrecoverable and irremediable blindness in the aged people over 65 throughout the world is ARMD (Holliday, Smith, Crones, Buitendijk, Jensen, & Sim, 2013). Because of this disease macula or the yellow spot will be degenerated. Macula is the section of the eye which is highly sensitive to the light of retina and responsible for the direct and clear sight which is necessary for careful activities, such as studying and driving (Parmeggiani, Sorrentino, Romano, Costagliola, Semeraro, & Incorvaia, 2013). The effect of ACT has been shown in the extensive range of clinical situations of behavioral and conceptual

obsession, the stress of job environment, stress of the final phases of cancer anxiety, stress due to the incident; psycho-lackadaisical, drug abuse and even schizophrenia. A study has shown that only a four hour treatment of ACT for the people who suffered from schizophrenia has decreased the ratio of backing to hospital up to 50 percent. (Harris, 2014). In the method of ACT, it is assumed that men regard most of his passions, emotions and internal thoughts obnoxious and they ceaselessly try to change these internal experiences or free themselves from them. These efforts to control these damages is useless and on the contrary ensues to the deterioration of the feeling, emotions and thought that he/she tries to avoid from them (Hayes, Strosah, & Wilson, 1999). The six bases of ACT processes are as follows: 1. Acceptance; 2. Clear Cognition; 3. Self- Integrity; 4. Touching all Moments of Life; 5. Defining the Values and 6. Consistency. These processes which are actually regarded as mind cognition and behavioral changing are mingled to each other to create psychological flexibility (Flaxman, Blackledge, & Bond, 2004:37).

Life quality is a complicated structure more extensive and comprehensive than mental sanity. It is a complicated structure that covers various domains of life such as health condition, ability to practice the various activities of daily life affairs, undertaking the role of the job, gaining the opportunities to follow recreations and entertainments, practicing the social functions of friendly relations and establishing relation with others, ability to employ the sources to preserve sanity, keeping the standards of life and public sanity. (Pine et al., 1999, quoted from Asadi Radd 2011). Sarvimaki, Stenbock, & Halt (2000) believe that according to Frankle philosophical discourses (1972), the aforementioned 3 domains are regarded as the main variances of life quality. Frankle believes that human being is believed to be a creature that looks for meaning of life and also

the creator of the meaning. Welfare alludes to the aspect of life enjoyment and the sense of being valuable and useful; it means that man experience as an existence who values himself with regard to his/her activities. The factors that affect on sense of welfare, the sense of being meaningful, and the sense of being worthy are called the conditions of the life quality and divided into two groups: internal and external conditions. From this view, sanity, is having the capacity of practicing the functions' employing the mechanism of adaptability and looking for an independent character. These are the elements of the internal conditions and on the other hand environmental or external condition embraces: job, housing and the social network and the position of life in the society.

Psychologists maintain that aging is a phase of life which usually starts from 60 to 65 and in this phase some changes appear in the internal and external organs that make adaptability to environment difficult for mean. Ageing could be studied from four different perspectives: the passage of the years of life, the physical condition, the psycho-emotion and the social position (Brayan L. & Robert, 1984). Macular degeneration relating to age (the passage of the years of life) is the main factor of permanent blindness for the aged people. Its reason is not known yet, but the chance of occurrence will rise by the passage of any decade after 50. Other factors are race (Caucasian as usual) gender (for women the chance of being blind is a little more), the background of the family, and being addicted to cigarette. The disease covers an extensive range of clinical and pathological findings which fall into two groups: Non-oxidative (arid) and oxidative (wet). It is true that both types are deteriorating and bilateral but are different from the view of symptoms, syndromes and the method of therapy. The oxidative type is the cause of around 90 percent of all the popular blindness due to age-related macular detergence (Ashtar Nakhaee, 2008:75). The result of various studies

emphasize on the ACT. For instance Irandoost and his colleagues (2005) in their notes titled "the role of group therapy, based on acceptance and commitment on the anxiety, relates to pain and depression of women who suffer from chronic backache" reached to this idea that group therapy based on ACT decreases psychosomatics of the people who are suffering from chronic backache that could improve their sanity. Anvari and his colleagues (2014) in their study showed the efficiency of newly method of therapy of the third wave of behavior. Velose and his colleagues (2008) in the process of their research placed 108 patients under the special therapy by employing two key processes namely therapy based upon: 1. Acceptance, and 2. Commitment, i.e. acceptance of pain and acting based on value. Three years after therapy, the practitioners studied the long term result of therapy. The result showed that the patients have improved both physically and emotionally. As it is said before the disease of ARMD causing blindness and semi blindness not only badly affects on the physical sanity but also affects on the psychological sanity too, that ensues lowering the man's dignity and self-respecting and evinces the negative senses and since the goal of ACT is to promoting the life quality not adapting or adjusting the emotions, the result of various research showed that the acceptance of pain, decreases the pain and improve the life quality. On the other hand, up to now, no research has been done to study the efficiency of ACT on ARMD. The present study attempts to understand whether ACT could affect the life quality of the aged people suffering from ARMD?

### **Method**

The research was done within a semi experimental study of the type of ANOVA with repeated measure and the LSD.

### participants

The research population of the present research is the aged men and women of Karaj province who were suffering from ARMD in Noor-e-didegan, Nour-e-Didegan Ophthalmology Clinic, within a period from the winter of 2015 to the spring of 2016. In this research, 28 aged people who were examined by the ophthalmologist of the clinic were diagnosed suffering from ARMD. The patients were selected through accessible sampling on the basis of their acceptance and refusing divided into two groups of 14 people in experimental and control groups and the questionnaires were given to them. It shall be noted that first, all participants were informed consent and necessary issues such as aims of the study, privacy, secrecy, etc., were fully discussed to them. Moreover, they were told that if anyone intended, she/he could refuse continuing in any session of the procedure. In addition, it was explained that after finalization of the study, participants would get informed about the results. Regarding to the study ethics, all the participants in control group received the full intervention package immediately after accomplishment of the study for free.

The criteria for choosing these patients were:

1. The men and women who were 60 or over;
2. Patients suffering from ARMD (both wet and dry);
3. Those who at least 5 years were suffering from ARMD. The criteria for putting aside the patients were as follows:

1. Those who were below 60;
2. Those who were suffering from *dementia* (it should be noted that the patient's consent have received in advance).

### Measures

To collect data, two questionnaires were used, one for the life quality and the other for demography.

**A. Life quality questionnaire:** to measure the level of life quality, WHO (1996) was used

which contains 25 questions that measure 4 dimension of life quality, these four domains are: physical sanity, psychological sanity, social relation, and social environment. This scale has been translated into 19 languages and is used in various countries to measure the life quality of people. For final evaluation of the scale of the questionnaire, the researcher piloted it through 302 students (both girls and boys) of Shiraz University and for ensuring the homogeneity, the Cronbach's Alpha formula was used and the result was obtained .84 which is high and proper co-efficient level and the gained result, a proper simultaneous authenticity was observed (Nasiri, 2006).

**B. The demographic questionnaire** collect information about the age, education, gender, and matrimony of participants. To practice the research after choosing the typical questionnaires, they were placed simultaneously at the disposal of those who participated in the research. Participant after completing the questionnaires were placed randomly into two control and experimental groups. The experimental group in addition to receiving the medicine were given ACT therapy within 8 sessions, each session lasted 2 hours (once a week), but the control group did not receive any treatment. After the final phase, new questioners were distributed among both groups. In this research, the method of therapy was ACT and the practitioners tried instead of changing the content, form or the thoughts that put them in trouble, concentrated upon the functions of cognitions that make them distress. The goal of this method of therapy is to help the patients to gain a better, richer and more meaningful life, which could be achieved through more flexible psychology. The description of the sessions of interfering has been shown in table 1.

**Table 1** . Procedure of sessions of acceptance and commitment therapy

<p>1- The first session allocated to introducing the patients to each other and also to their practitioner, as well as familiarity with the regulation of the group, being aware of general descriptions of the therapy, programming the home responsibilities, listing 3 to 5 types of the popular problems such as anxiety, depression, and feeling disability to do their own affairs.</p> <p>2- The second session was allocated to study the program of the first session, studying the patient's problems from the view of ACT (extracting the experience of avoiding, associating and self respecting); putting forward the home duties; preparing a list of advantages and deficits and the manners of control</p> <p>3- The third session was allocated to studying the program of the second session, explaining to the deficiencies of controlling the negative events by employing the metaphors and training to resist against negative excitations and experiences, putting forward the home programs and duties, recording the cases that the patients have successfully overcome the deficiencies of their control abilities.</p> <p>4- The fourth session was allocated to study the home duties of the third session, putting aside the negative evaluations from the personal experiences (the metaphor of ominous cup) and choosing an attitude by observing</p>	<p>the thought without judging. Putting forward the home duties; recording the various cases that the patients have successfully observed and have avoided them from evaluating their experiences and excitations.</p> <p>5- The fifth session was spent to study the program of the ex-session, establishing connection with the present time and considering ourselves as a background (the metaphor of the chess board) and training the techniques of mind awareness. Practicing the home duties including, recording the cases that the patients have successfully could control their thoughts by employing the techniques of mind awareness.</p> <p>6- The sixth session allocated to studying the duties of the ex-session, cognition of patients' life values and evaluating the values on the basis of their priorities. Putting forward the home duties; discussing about the list of impediments against the research.</p> <p>7- The seventh session: studied the duties of the ex-session, offering advices for practical problem shooting, using metaphors and programming for being committed to pursue the values and contemplating about the sessions' achievements</p> <p>8- The eighth session: was summing up the studied points within the ex-sessions, inviting the members to explain their achievements and their programs for their future.</p>
--	--

### Data Analyzing

In this section the descriptive indicators of the research variants in the phases of pre-test and post-test and follow-up in both groups (experimental and control) are presented. In the domain of the sample of experimental group that covers the people of 64 to 91 years old; the average age of the experimental group was 82.97 and in the control group was 72.21. The frequency of

sample distribution according to sex in the experimental group was 6 women and 8 men and in the control group were 4 woman and 10 men. The frequency percentage of education of the participants was as follows: 17.9% were uneducated; 42.9% were under A-level; 10.7% were 0 level and 3.6% possessed the diploma of M.S. or M.A. The frequency percent of the participants from the view

of matrimony was as follows: 71.4% were married and 28.6% were single.

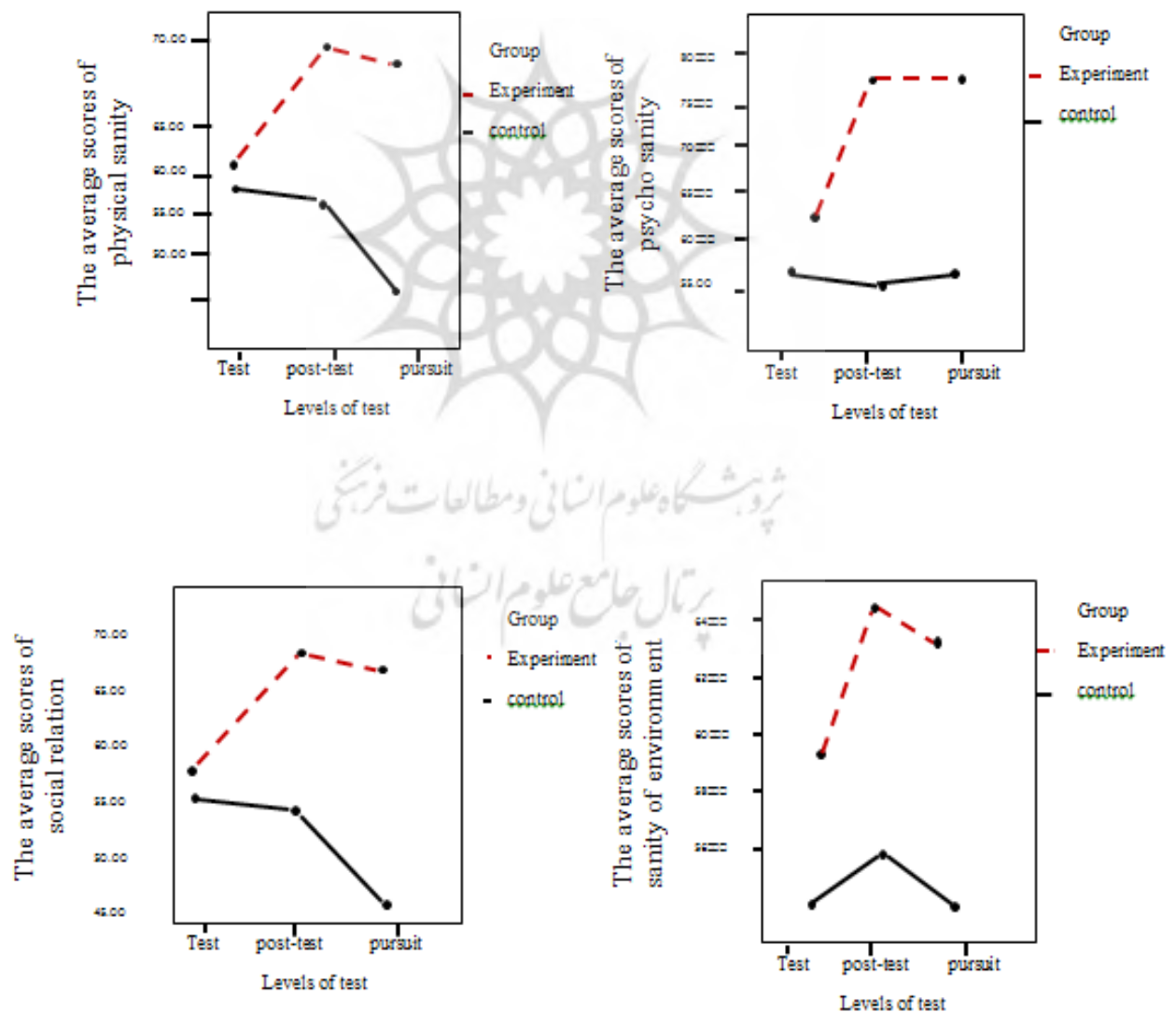
### Result

In table 2, the mean and deviation from standards of life quality fall into 3 phases i.e. pre and post test and follow-up the people of the both groups have been studied.

As the table 2 shows the mean score in the experimental group in the pre-test phase under the standard of physical sanity (60.43) and after the test are 66.29, and in the phase of follow-up is 64.93. Also the mean score of psychological marks in the experimental group in the pre-test phase is 58.07 in the post-test is 68.36 and in the phase of follow-up is 67.42. The mean score of social relations of the experimental group in the follow-up phase is

**Table 2.** Mean and standard deviation of scores of QOL in experiment & contril groups

Variance	group	Pre-test		Post-test		Follow-up	
		mean	SD	mean	SD	mean	SD
Physical sanity	test	14/66	60/43	13/05	66/29	14/35	64/39
	control	12/31	58/14	10/94	57/29	8/14	50/50
Psychological sanity	test	18/04	58/07	10/96	55	8/95	47/86
	control	10/09	56/29	2/1	56/43	2/4	55/64
Social relation	test	18/83	68/71	16/76	77	16/76	77
	control	11/50	60/36	10/67	59/43	10/67	59/43
Sanity of environment	test	14/46	60/36	14/38	64/43	14/56	63/93
	control	12/45	56/71	12/39	57/64	19/18	56/29

**Diagram 2.** Mean of scores of subscales of QOL in three levels in experiment and control groups

77. The mean score of environmental sanity of experimental group in the pre-test phase is 60.36, in the post-test is 64.43, and in the follow-up phase is 63.93. The diagram 2 shows the mean score of the fraction of the standards of life quality in the 3 phases of testing in both groups.

To test hypothesis of the present research, the repeating variance was used. Before testing the hypothesis and ANOVA with repeated measure, the assumptions were met to observe the pre-assumptions through Shapiro-Wilk test to assure of normality, the Levene's Test was done to assure of consistency and integrity of the variances, and Mauchly's Test of Sphericity was done to be sure of the homogeneity and integrity of co-variances.

The hypothesis of the research is: "The ACT therapy affect on the life quality of those who are suffering from ARMD." In table 1, the results of the Levene's Test and Shapiro-Wilk studies as well as the study of Mauchly's Test of Sphericity have been presented.

As we have seen in table 1, the significant meaning of the level of Levene's Test, Shapiro-Wilk for all the variances are over .05. Therefore the theory of integrity and homogeneity of variances

and their normality are affirmed. The level of significant meaning of the Mauchly's Test of Sphericity study about the physical sanity and psychological sanity as well as social relation are less than .05 and for the sanity of environment is over .05. Therefore one can say the homogeneity of co-variances in the three variances of physical sanity, psycho-sanity and social relations have not been considered but the environmental sanity has been considered. Due to the fact that Sphericity Assumed regarding the physical sanity, psycho-sanity and social relation have not been considered in the outcome of the ANOVA with repeated measure, the results of the study of Greenhouse-Geisser have been offered. In table 2, the result of the study of ANOVA with repeated measure has been presented.

As table 2 shows, between the agents' scores (pre and post test and follow-up) in the level of physical sanity no meaningful differences were observed; but between the agent's scores in the field of psycho sanity, social relations and environmental sanity a meaningful difference ( $p \leq 0/01$ ) was observed. In studying interaction between various phases of studies and the groups, the results showed that

**Table 1.** the result of Levene's Test, Shapiro-Wilk and Mauchly's Test of Sphericity for studying the assumptions

Variances	Test phases	Levene's Test		Shapiro-wilk		Mauchly's W	
		F	P	Statistic	P	Statistic	P
Physical sanity	Pre-test	0/226	0/64	0/937	0/09	0/291	0/001
	Post-test	0/160	0/69				
	Follow-up	3/45	0/07				
Psycho sanity	Pre-test	2/56	0/12	0/934	0/08	0/705	0/01
	Post-test	0/288	0/59				
	Follow-up	1/99	0/17				
Social relation	Pre-test	/4	0/06	0/927	0/06	0/423	0/001
	Post-test	3/7	0/06				
	Follow-up	3/7	0/06				
Sanity of environment	Pre-test	1/44	0/24	0/823	0/07	0/909	0/3
	Post-test	1/03	0/32				
	Follow-up	3/72	0/06				

**Table 2.** Results of one-way ANOVA with repeated measures to assess the between-group and interactional effects.

between-group effect		SS	df	Ms	F	P	Partial Eta Squared	statistical power
Physical Sanity	Greenhouse- Geisser	236/09	1/17	201/69	2/59	0/113	0/09	0/50
Physical Sanity of Group	Greenhouse- Geisser	518	1/17	442/52	5/7	0/02	0/18	0/68
Psychologica Sanity	Greenhouse- Geisser	343/02	1/54	222/15	9/62	0/001	0/27	0/94
Psychological Sanity of Group	Greenhouse- Geisser	114/064	1/54	738/72	31/99	0/0001	0/55	1
Social Relation	Greenhouse- Geisser	252/59	1/27	199/14	4/67	0/03	0/15	0/62
Social Relation of Group	Greenhouse- Geisser	891/5	1/27	312/37	7/32	0/007	0/22	0/81
Invironmental Sanity	Sphericity Assumed	89/43	2	44/71	4/07	0/02	0/74	0/69
Invironmental Sanity of Group	Sphericity Assumed	179/02	2	31/05	2/82	0/07	0/10	0/53

between the agent's mark (pre and post test and follow-up) and the groups in the rate of physical sanity ( $p \leq 0/05$ ), psycho-sanity and social relations at the level of ( $p \leq 0/01$ ) a meaningful interaction was obtained. These results show the effect of ACT on all the three domains but no meaningful result was achieved for the sanity of environment. The rate of affecting or the difference (Partial Eta Squared) and the statistical power of any of the variances have been presented in statistical exponent of any of the variances. In table 2, variances have offered in tables 5 and 4. To show which variance in which phase of study possesses a meaningful difference the test of LSD with the provision of observing the

homogeneity of variances have been used. This test has been done to compare the averages in twos or two by two. The results are shown in table 3.

According to the results of table 3, in the experimental group, between the mean scores of physical sanity, psycho sanity and social relations in comparing the phases of pre test and post test, there is a meaningful difference: ( $p \leq 0/01$ ) but between the phase of pre-test follow-up and post-test follow-up, no meaningful difference was seen. It means that the rate of physical sanity, psycho sanity, and social relation has increased significantly but such augmentation in the passage of time has not remained stable.

**Table 3.** Results of repeated measures test for subscales of quality of life in diad comparison of intervention phase in experiment group

Phases	Pretest-Posttest		Pretest-follow-up		Posttest-follow-up	
	<i>variance</i>	<i>sig</i>	<i>variance</i>	<i>sig</i>	<i>variance</i>	<i>sig</i>
Physical Sanity	-2/5	0/004	1/75	0/49	4/07	0/05
Psychological Sanity	-4/5	0/0001	-0/46	0/74	4/03	0/001
Sanity of Environment	-3/68	0/004	-3/68	0/06	0/001	0/99



## Discussion and conclusion

The present research has studied the role and efficiency of experimental group through the ACT for the aged people suffering from ARMD. The findings have shown that employing such manner of approaching has improved the life quality of the people who are suffering from ARMD in three domains of physical sanity, psycho sanity and social relation significantly. Because unlike the physical therapies which keeps the patient in the hospital or treating by medicine which costs too much, the patients who were undergone, the approach of ACT could follow the practices and techniques that they have trained in their homes and also extended this methods in other cases. It could be said that one of the factors that threatens the life quality is sudden changes in the life of aged one; like inflicting to a serious diseases. Regarding the fact that the main goal of life quality is sanity and therapy of the chronic diseases and promoting the psycho sanity; therefore the aged people due to the agedness and psycho disability, evaluate themselves negatively and such a view, discourage and disrespect them. The present treatment with regard to emphasizing the values of people and setting goal and acting committed homogenous with their values and also acceptance of pain due to deficiencies special for agedness and, ARMD raises the mark of life quality. The goal of therapy based on commitment and acceptance is decreasing experimental avoidance and increasing psychological flexibility through accepting inevitable ominous and harmful feelings and encouraging aged people to practice and training and turning their attention towards their values and the goals related to the values and committed act.

Today the improvement of sanity of the handicapped people is regarded as a rehabilitation goal.

Therapy is a practical – situational approach based upon the theory of relating system that regards man's' pain due to the psychological inflexibility that originates from distortion of cognition and

experimental avoidance. In the context of therapy relations, the therapy based on ACT and direct approach and indirect verbal processes in order to create psychological flexibility to encourage the patient to accept the pain and to create an exalted feeling toward himself or herself at the time of being, and creating values and patterns of act committed in relation to these values (Montazeri and his colleagues 2012) in this approach the values are defined as a selected quality of directed activities and teach the aged people to distinguish between choices and reasonable judgments and encourage them to choose the values and consider what they dream in various domains of their life such as job, intimate relations, friendship, personal growth, sanity and spirituality and these factors are regarded as the agents of life quality that improve the patients' quality of life. In the ACT approach, the patients are asked to turn their attention to the various dimensions that they regard important such as job, family, intimate relations, friendly relations, personal growth, and spiritual sanity and so on. Emphasizing upon the values of the patients encourage them to participate in the sessions of group therapy. In the therapy sessions, some the dimensions of life quality are regarded as values; the dimensions such as physical activity, the limitation of role performing due to physical condition, limitation or role performing due to the emotional difficulties and accepting these limitations and avoiding from denial them help the aged people to improve their condition. The processes of accepting the statuesque, considering the values and acting committed helps the aged people to accept the responsibility of changing their behavior. Therefore an equilibrium will be established between the changeable domains through concentrating on them (visible behaviors) and the strategies of unchangeable domain through the processes of acceptance and awareness of mind (Heyse et al., 2004). The considerable point is that

the participants by practicing the exercises and by seeing their effects found a stronger feeling to control their disease (Ibide). In this research no change was seen in the degree of environmental sanity. This domain covers financial issues, freedom, new skills, participating in entertainments and procreative activities. Since these issues are regarded as external obstacles for the aged people which are not to be eliminated easily and to move towards the goals despite the existence of these obstacles needs a great effort and it is clear that due to the limitations of time and practices one cannot expect and upheaval in this field.

Up to the present time no research has been done to study the effect of this type of therapy (ACT) on the patients suffering from ARMD. With regard to the effect of this therapy upon the rise of life quality among these patients, it could be said that the results of the present research are in the line with the results of Fernandez et al. (2015), Dindo et al. (2012), Bahar Mohebbat et al. (2014), Narimani et al. (2014), Nasiri et al. (2016), Bakhshayesh et al. (2015), Fathi Ahmadi Sarabi et al. (2016).

Fernandez et al. (2015) showed that the approach of ACT along with training in the SOC strategies could help the aged people suffering from ARMD improve their ability to act independently.

Dindo et al. (2012) in the process of their studies invited 45 patients suffering from migraine and depression in a one workshop of ACT. The result showed that the scores of three domains have increased significantly.

Mohabbat Bahar and et al. (2014), in a research concluded on the efficiency of Group Psycho Therapy of ACT on the Life Quality of the Women Suffering from Breast Cancer, found that this therapy is effective in the field of physical sanity, psycho sanity and social relations and promotes their life quality.

Narimani et al. (2014), have studied the efficiency of ACT on the life quality of the sterile women and

concluded that this therapy has improved their life quality and has affected upon the indicators of general sanity, physical role, social activities, physical pains, psycho-sanity and liveliness.

Nasiri et al. (2016), followed the research of efficiency of ACT on the life quality of those who were suffering from disorder of digestive system and the efficiency of this therapy was approved.

Fathi Ahmadi Sarabi and et al. (2016), followed the same method of therapy on the life quality of the diabetic 2<sup>nd</sup> type patient. Their findings showed the efficiency of the therapy that after 3 month of therapy, the life quality was checked again and it showed the stability of the efficiency of the therapy. As Fathi said: "limitations of expert research in this field, illiteracy of some of the members have been invited as samples, the probable misunderstanding the content of the questionnaires which may affect the result of the research; unsuitable place for training and practicing therapy, difficulties to keep the consistency of the patients and gaining the necessary budget to follow the research's expenses at least for one year; were among the obstacles that faced the research with great difficulty. Since the present research was done in a clinic in Karaj it is difficult to generalize the result in the other regions.

The suggestions for realization the goals of the present research are: sampling should be done randomly and since the research was done in a restricted place, namely Karaj Noor-e-didgan clinic, the result may be regarded with a certain doubts, while if it was possible to follow the research in a greater and more credible clinic so far the results of the research could be generalized. To remove the problems for transferring the methods of ACT effectively to the illiterate and semi literate people, it is possible to employ other manners besides the questionnaire, for example they could be interviewed.

## Appreciation

I could not finish the report of my research without saying that I am heartedly indebted to all the participants of the project especially my noble professors and the head of Karaj Noor-e-didgan Clinic.

## References

- Al-Bdour, M., Al Till, M., Abu Khader, B. (2002). Causes of blindness among adult in Jordanian population: A hospital-based study. *Eur J ophthalmol*. 12: 5-10.
- Alipoor, F., Sajadi, H., Foroozan, A., Biglarian, A., Jalilian, A. (2008). The relation between social and economic capital, and quality of life in elderly residents of Tehran, *Journal of Ageing*, 9-10, 75-82.
- Amini R., Haghani H., Masoomi M., Nakhaee M. (2008). Quality of life of veterans. *IJWPH*. 2(1): 24-35.
- Anvari MH., Ebrahimi A., Neshat doost HT., Afshar H., Abedi A. (2014). Effectiveness of Acceptance and Commitment Therapy (ACT) on acceptance of pain, pain-related anxiety in men with chronic pain, *Journal of Isfahan Medical School*. 32(295).
- Asadi Rad, H. (1388). Effectiveness of education of happiness on enhancing the quality of life and reducing marital conflicts of Bushehr city, Master thesis Islamic Azad University, marvdasht.
- Ashtar Nakhaee, (2008). Ophthalmology Vaughan Summary. Tayyeb Publication.
- Bak TH, Alladi S. (2014). Can being bilingual affect the onset of dementia? *Future Neurology*, 9(2):101-3.
- Bal, A. E., ... & Goldberg, A. P. (2015). Insights into autism spectrum disorder genomic architecture and biology from 71 risk loci. *Neuron*, 87(6), 1215-1233.
- Barry, P. P. (2000). Overview of special considerations in the evaluation and management of the geriatric patient. *American Journal Gastroenterology*; 95(8), 1-10.
- Brian L, M. Robert, J (1984), Adult psychology, translated by: Ganji, H. Vaddadian, Habibi, F, (1992), Tehran: Ettelaat Publication.
- Brettle A, Hill A. (2006). Counseling older people, social work practice ; 20(3): 281-297.
- Clarke, G. N., Hawkins, W., Murphy, M., Sheeber, L. B., Lewinsohn, P. M., & Seeley, J. R. (1995). Targeted prevention of unipolar depressive disorder in an at-risk sample of high school adolescents: A randomized trial of a group cognitive intervention. *Journal of the American Academy of Child & Adolescent Psychiatry*, 34(3), 312-321.
- Dehgan N. (2006), Relationship between social skills & mental health with educational progress in students Yazd city. Mstheises in Allameh University. p34.
- Dindo L, Recober A, Marchman JN, Turvey C, O'Hara MW. (2012). One-day behavioral treatment for patients with comorbid depression and migraine: a pilot study. *Behav Res Ther*; 50(9): 537-43.
- Fathi A., Neshat doost H.T., Manshaee GH., Nadi M.A. Determination of the Effectiveness of Acceptance and Commitment (ACT) on life quality in patients with Type 2 diabetes (2016). *Journal of Health Education and Health Promotion*; 4(1): 3-31.
- Fernández M. A., López A. L., González J. L., Wetherell J. L., Losada A. Acceptance and Commitment Therapy and Selective Optimization with Compensation for Institutionalized Older People with Chronic Pain. (2015). *Pain Medicine*. DOI: 10.1111, pme.12885.
- Flaxman, P.E, Black ledge. J. T., Bond, F. (2014). Acceptance and Commitment Therapy, Mosleh Mirzaee, Samaan Nonahal. Arjmand Publication.
- Folstein, F. M., Folstein, E. S., Mchugh, P. R.A. (1975). Practical Method for Grading the cognitive state of patients for the clinician. *Journal of psychiatric research*:
- Ghomian S., Shaeeri M. R. (2014). Preliminary design based on Acceptance and Commitment Therapy protocol for children with chronic pain and study of its effect on the psychological resilience to pain in children 7 to 12 years old. *Journal of Research in Behavioral Sciences*; 12 (4): 581-592.)
- González-Méndez, Y., Peris, A. and Pellisé, M. (2013). Modifiable endoscopic factors that influence the adenoma detection rate in colorectal cancer screening

- colonoscopies. *Gastrointestinal endoscopy*, 77(3), 381-389.
- Guymer R.H., Chong E.W.(2006). Modifiable Risk Factors of Age-Related Macular Degeneration. *Med J*;184(9):455-458.
- Harris, Ross.(2014). In the embrace of demons Mind:An Introduction to Acceptance and Commitment Therapy, translated by Ali Feizi, Arjmand Publication.
- Hayes S.C., Strosahl K.D., Wilson K.G.(1999). Acceptance and Commitment Therapy: Anexperiential approach to behavior change. *NewYork: Guilford Press*.
- Hereford, A. (2001). The nurse's role in the management of aggression. *Journal of psychiatric and mental health nursing*, 13(3), 309-318.
- Holliday E.G., Smith A.V., Cornes B.K., Buitendijk G.H., Jensen R.A., Sim X, et al(2013). Insights into the Genetic Architecture of Early Stage Age-Related Macular Degeneration: A *Genome-Wide AssociationStudyMeta-nalysis*;8(1):e52830.
- Hosseinaee A., Ahadi H., Fata L., Heydari A., Mazaheri M. M.(2012). Group teaching effectiveness of Acceptance and Commitment Therapy (ACT) on job stress and job burn-out. *Iranian Journal of psychiatry and clinical psychology*. 19-2,109-120.
- Irandoost F., Safari S., Neshatdoost H. T., Nadi M. A. (2015). Effectiveness of Acceptance and Commitment Therapy based on pain- related anxiety and depression in women with chronic back pain. *Journal of Behavioral Science*; 9 (1) 1-8.
- Lashani L., Farhoudian A., Azkhosh M., Dolatshahi B., Saadat H.(2013). Acceptance and Commitment Therapy in the Satisfaction of Veterans with Spinal Cord Injuries Spouses, *Iranian Rehabilitation Journal*, 11- 18.
- McGuire L.C., Ford E.S., Ajani U.A. (2006).Cognitive functioning as a predictor of functional disability in later life.*Am J Geriatr Psychiatry*;14(1):36-42.
- Mohabbat Bahar S., Akbari, M. E., Maleki, F., Moradi joo M.(2014). The effectiveness of group therapy based on acceptance and commitment to the quality of life of women with breast cancer. *Journal of Thought and Behavior*. 9-34, 17-26.
- Moscovitch, M.,Winocur, G.(2002).the frontal Cortex and working with memory .In D.T. stuss& R. T. knight (Eds), principles of frontal lobe function(pp.188-209), *New- Yourk, oxford university press*.
- Narimani M., Alamdari E., Abolghasemi A. (2014). Assessing the Effectiveness of Acceptance and Commitment Therapy based on life quality in infertile women. *Journal of Family counseling and Psychotherapy*; (3).
- Nasiri S., Ghorbani M., Adibi, P.(2016). The Effectiveness of Acceptance and Commitment Therapy on life quality in patient with functional gastrointestinal symptoms. *Journal of Clinical Psychology*, 7-4, 28.
- Nasiri, H. (2006). Study Reliability and Validity of the World Health Organization Quality of Life short form Questionnaire. (Papers set IRQOL) and the World Iranian version WHOQOL- BREA, *The third Seminar of Students' Mental health*;369.
- Niksirat Z.(2005). Evaluation of life quality in retired members of the pension in Tehran 2005. Master dissertation, *Faculty of Social Welfare and Rehabilitation Sciences, University of Tehran*.
- Parmeggiani F., Sorrentino F.S., Romano M.R., Costagliola C., Semeraro F., Incorvaia C., et al.(2013). Mechanism of Inflammation in Age-Related Macular Degeneration: An Up-to-Date on Genetic Landmarks. *Mediators Inflamm* ;435607.
- Rahmani, M.(2013). Pilates exercises effect on improving some of the cognitive factors, balance and life quality in elderly disabled man in Kermanshah. Master dissertation, Department of Physical Education and Sport Science, Kermanshah Razi University.
- Rashedi V., Rezaei M., Gharib M.(2014). Prevalence of cognitive impairment in community-dwelling older adults.*Basic and Clinical euroscience*;5(1):28-30.
- Seyedahmadi M., keyvanlou F., koushan M., Mohammadiraof M.(2010). comparing the mental health of athlete and non- athlete university students.

*Journal of sabzevar University of medical sciences;*  
17(2): 116-122.

ShoaaKazemi M., Namdari M.(2009). Effectiveness of training coping strategies on patient of MS.2th congress of students. Tehran Alzahra University; 17.

Vowles K.E., McCracken L.M.(2008). Acceptance and values-based action in chronic pain: a study of treatment effectiveness and process. *J Consult Clin Psychol*; 76(3): 397-407.

Von- wichert, P. (2008). The importance of atmospheric heat waves for health service in already altered people, *Med klin (Munich)*, 103 (2), 67-75.

