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Original Article

Effectiveness of Positive Psychology Group Interventions on Meaning of Life and Life Satisfaction among Older Adults

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A B S T R A C T

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Introduction: Biological changes impact the psychological and interpersonal function in late life. Therefore, the general health and well-being diminish with decreasing the ages. These changes lead to decreasing life satisfaction and meaning of life in elderly individuals. The aim of study is to examine the effectiveness of positive psychology interventions (PPIs) on meaning of life and life satisfaction among older adults.

Methods: This study is quasi-experimental with pre and post-tests. Thirty elderly residents were selected from Tohid nursing home in Tehran in 2015. The participants were assigned randomly to the control (15 subjects with mean's age 74.66 ± 6.62) and experimental groups (15 subjects with mean's age 76.73 ± 9.45). PPIs were conducted during 10 sessions (each 90 minutes per week). Then the questionnaire was administered at post-test. Statistical analysis was conducted using Paired Samples *t*-test and analysis of Covariance. The research instruments were the Meaning in Life Questionnaire, the Mini Mental State Examination, and the Satisfaction with Life Scale .

Results: There was a significant difference between the pretest and post-test scores of meaning of life ($t = 3.85$) and life satisfaction ($t = 4.10$) in the experimental group ($p < 0.05$). Also, there was significant difference between means of meaning of life ($F = 19.88$) and life satisfaction ($F = 18.72$) by eliminating the pretest effect ($p < 0.05$).

Conclusion: The finding emphasized that PPIs is a kind of psychotherapy that addresses strengths, resources, values and hopes instead of deficits and weaknesses. Hence, it could be considered in therapeutic intervention to enhance the component of well-being as life satisfaction and meaning of life.

Keywords: Positive Psychology Intervention, Life Satisfaction, Meaning of Life, Older Adults

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Introduction

Aging as a progressive state is associated with multiple degenerative changes of psychological and biological functions (1). The world's aging population is growing increasingly in Organization for Economic Co-operation and Development countries and under developing societies (2). It is predicted that the ratio of the elderly population in Iran will be about 10.4 percent by 2025 projecting 20 percent of total population by 2040 (3). Older adults are at a higher risk of declined quality and meaning of life through the degenerative changes and chronic comorbidities (4). Momeni and Karimi compared the prevalence of mental disorders among elderly admitted in sanitarium and community-dwelling older adults. Surprisingly, 80% of the nursing home residents suffered from psychological disorders, with 15 ± 3 percent depressive symptoms .Additionally, the high incidence of depression in nursing home residents is an inevitable consequence of the declined health, lack of economic and social resources, loss of interpersonal relationships, all result in gradually decrease in life satisfaction and psychosocial well-being (5).

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In previous researches, there has been a growth in attention to knowledge about meaning of life and its profound implications for psychological well-being among older adults (6, 7). Recent studies show that meaning of life is one of the protective factors that facilitates positive adaptation outcomes in diverse adverse situations (8, 9). Meaning of life can be defined as ''the cognizance of order, coherence, and purpose in one's existence, the pursuit and attainment of worthwhile goals, and an accompanying sense of fulfillment'' (10). Various personal sources in people's life engender the meaning in life span of individuals, including achievement, relationship, self-acceptance, intimacy, leisure activities, personal growth, and meeting basic needs (11). However, several studies in Asian countries found that meaning of life is related to culturally specific factors (12). In other words, individual's concepts of meaning of life include both culturally specific and universal indicators (13, 14). The findings of empirical study indicated that the achievement of life meaning is correlated with positive mental health outcomes such as positive affection (15) and life satisfaction (16), and caregivers (17). These results have suggested that the meaning of life is a crucial factor behind positive affection and provides a happier and satisfying life (18, 19). In addition, life satisfaction or a cognitive assessment of satisfaction with life circumstances is one fundamental index of subjective well-being (20-24).

A practical approach to increase life satisfaction and happiness is positive psychology interventions (PPIs) (25). PPIs is designed to cultivate positive feelings, behaviors, or cognitions such as writing gratitude letters, practicing optimistic thinking, replaying positive experiences, and socializing that it have been indicated to increase well-being in nonclinical samples (26). The particular purpose of these interventions is to fix, relieve, or heal something that is pathological, or deficient, and it is not inclusion in the definition of PPIs (25). According to Seligman and Csikszentmihaly's, "the field of positive psychology at the subjective meanings includes well-being, contentment, and satisfaction (in the past); hope and optimism (for the future); and flow and happiness (in the present)." (27). Some previous works showed the efficacy of positive psychology interventions such as counting blessings, practicing kindness, setting personal goals, expressing gratitude savoring positive experience (25). Positive activities have the typically brief, simple accessible techniques. For example, people may be instructed to list "five blessings" or "three good things" once week (28).

In Iran, the study of positive psychology therapy is not found in the domain of the elderly adults in nursing home resident. The purpose of this study is to fulfill this gap by developing a PPIs model and investigating its effects on meaning of life, and life satisfaction among the elderly adults in Tohid's nursing home in Tehran, in 2015, with respect to developing an effective nursing strategy to mental and psychological care of this population.

Methods

Procedures

This study is a quasi-experimental research with pre and posttest, and control group. The sample group was composed all elderly residents of Tohid nursing home (n = 100) in Tehran, 2015. Firstly, 100 residents completed the Mini-Mental State Examination (MMSE) to assess their mental health status. All residents were considered suitable for the study except they had exclusion criteria: illiteracy, severe mental and/or physical disability, impaired judgment, impaired orientation, personality disorder, contribution to another psychological intervention, and withdrawing from more than one intervention session.

Finally, the 30 elderly adults who did not have the optimal cutoff score (< 24) for diagnosing cognitive impairment were randomized to the intervention (n = 15) and control group (n = 15). The intervention group received positive psychology therapy (Table 1) in 10 sessions (90 minutes for each session per week), but the control group did not receive any intervention. The researcher followed the standardized procedures and techniques of the program. To minimize the confounding effect of environmental difference on intervention and control groups, a research coordinator instructed the groups and the sessions at the same place. At each session, the content, topics, and assignments from the previous session were reviewed followed by the next assignment given at the end. One week, after the intervention sessions, the post-test was taken from the intervention and control groups. To follow up, 1 month after completion of the study, both groups completed the questionnaire.

Instrumentation

The Meaning in Life Questionnaire (MLQ) was developed by Steger et al. to assess 2 dimensions of meaning in life—the Presence of Meaning (MLQ-P) and the Search for Meaning (MLQ-S)—using 10 items rated on a 7-point scale from 1 (absolutely untrue) to 7 (absolutely true) (29). This questionnaire was applied for 151 undergraduate introductory psychology students. In the original version, the test-retest reliability was reported by Steger for current meaning in life and research on meaning in life was 0.86 and 0.84 respectively by test- retest. Khodabakhshi Koolaee et al. translated MLQ into Persian (30). They carried out the test on no epileptic patients. In Persian study, the alpha cronbach reliability for current meaning in life and meaning in life was 0.83 and 0.84 respectively by test-retest.

The MMSE was designed by Folstein et al. to assess the mental status in psychiatric patients (31). This inventory is a 30 item self-report measure that evaluates some cognitive function including orientation, memory, attention, and language. The test-retest reliability reported by Folstein was 0.89, and inter-rater reliability was 0.82 (31). Moreover, in Persian study, it was performed among elderly in Tehran in 2008 and the inter-rater reliability gave a

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Pearson correlation of 0.71 and alpha Cronbach's Alpha was 0.78 (32). Life satisfaction was evaluated by the five-item Satisfaction with Life Scale (SWLS) that was originally developed by Diener et al. to assess total life satisfaction as a cognitive – evaluative process (33). Tagharrobi et al. translated SWLS into Persian and applied it for a group of Iranian students. The scores ranged from 0 to 25 so that the higher scores reflected greater life satisfaction. The reliability of SWLS was 0.85 - 0.90 for the Persian version (34).

Table1. Structure of positive psychology therapy

sessions	Sessions objectives
First session	Initial introduction, declare short objective of sessions,
Second session	Demonstrate the ability, recognize the five considerable ability and utilize them in daily life
Third session	Count the blessing, consider the blessing and note three blessing everyday
Forth session	Express the appreciation to who have any influence on your life
Fifth session	Savoring life's joys; derive the great pleasure from minimal activities such as; drink tea
Sixth session	Use active/ constructive responding: affirm the good news and give positive feedback
Seventh session	Subtracting a positive event from your life
Eighth session	Service provider: make invaluable contribution to the charitable activities
Ninth session	Satisfying: choosing the best option from all possible option to donate to others
Tenth session	Maintain the therapeutic effects: receiving the reaction of subjects and provide the exercises to utilize in the future

Ethical consideration

Some information was provided about the program and the researchers emphasized on respect the principal of the confidentiality of personally information in written forms. Informed consent was obtained before the training started with emphasis on free and voluntary participation.

Data analysis

The collected data was analyzed utilizing SPSS-16 software tool. Data was compared between these two groups using paired samples *t*- test and analysis of covariance.

Demographic Data

The mean's age of control and experimental group is 74.66 ± 6.62 and 76.73 ± 9.45 respectively. The status of marriage in both groups is the same, 10 elderly adults were single and 5 elderly adults were married. In addition, the nine elderly adults in experimental group had secondary school degree and five elderly adults had the 12th grade. However, the educational status in control group includes the five elderly adults with secondary school degree and ten elderly adults with 12th degree. Also, the Chi-square test that was applied to compare the frequency of socio demographic of the participant in two groups, showed no significant difference in sex ($\chi^2 = 0.00$, $p = 0.999$), marital ($\chi^2 = 0.00$, $p = 0.999$), and educational status ($\chi^2 = 2.14$, $p = 0.143$).

Results

The scores of meaning of life ($t = 3.85$, $p = 0.373$) and life satisfaction ($t = 4.10$, $p < 0.001$) in the experimental group significantly improved, whereas there is no significant difference between pre and posttest scores of life satisfaction ($t = 0.434$, $p = 0.671$) and meaning of life ($t = 0.922$, $p = 0.573$) in control group (Table 3). Table 4 shows the results of covariance analysis comparing the meaning of these two groups by eliminating the effectiveness of pre-test. Accordingly, there is a significant difference between the score of pretest and posttest in meaning of life ($F = 19.88$, $p < 0.001$, Eta Squared= 433) and life satisfaction ($F = 18.72$, $p < 0.001$, Eta Squared = 0.419).

Table 2. The Demographic data of participants

Variable	Experimental group	Control group	χ2	p
Sex	N (%)	N (%)		
Male	7(46.7)	7(46.7)	0.00	0.99
Female	8(53.8)	8(53.8)		
Marital Status				
Single	10(66.7)	10(66.7)	0.00	0.99
Married	5(33.33)	5(33.33)		
Education				
Uneducated, Elementary	9(60)	5(33)	0.00	0.14
High school and Diploma	5(40)	10(66.7)		

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Table 3. The comparison of the scores of life satisfaction and meaning of life between pre and post test

Variable	Group	Pre-test Mean ± SD	Post-test Mean ± SD	p
Life satisfaction	Experimental	32.7 ± 8.3	37.2 ± 7.0	0.001
	control	31.5 ± 9.2	31.2 ± 8.8	0.67
Meaning of life	Experimental	49.7 ± 11.6	54.0 ± 8.2	0.002
	control	48.7 ± 5.6	49.2 ± 6.0	0.57

Table 4. Results of covariance analysis of life satisfaction and meaning of life between two groups

Variables	Group	F	p	Eta Squar
Meaning of life	Pre test	207.87	0.001	0.889
	Group	19.88	0.001	0.433
Life satisfaction	Pre test	155.48	0.001	0.857
	Group	18.72	0.001	0.419

Discussion

The study was conducted to investigate the influence of PPIs on life satisfaction and meaning of life among elderly adults in nursing home residents. The results showed that PPIs remarkably elevate life-meaning of elderly adults in nursing home residents that is consistent with previous works (35, 36). During the group sessions, residents were stimulated to recollect positive life events, and count the blessing, to allocate some time for others, and to interact with others. This activity encouraged participants to engage in other positive behaviors that are unrelated to the prescribed activity. Thus it promoted a sense of identity, and reaffirmed the meaning of their lives. To explain this relationship, it is necessary to illustrate one of the theories of positive psychology that was developed by Layous (37). This theory is a different theoretical model to explain the effectively function of positive psychology, upon which positive interventions enhance the well-being and diminish the symptoms of diverse disorders directly and indirectly through increasing positive thought, behaviors, and emotions. According to this model, positive activity can be relieved the proximal risk factors such as rumination or pessimism (25). It has been related to several types of psychopathology (38). In this regard, Nelson et al. indicated that self-affirmation, one of the positive activities, decreases threatening self-doubt and increases meaning of life and need satisfaction (39). Notably, the positive emotions help people to develop their abilities to solve the problems creatively (25). In addition, finding meaning in life is not just having a purpose and value. Moreover, individuals must feel that they have the ability to achieve such goals and realize such values (40). This is exactly what the positive psychotherapy performs. On the other hand, a study has affirmed the importance of purpose in life as important aspects of positive intervention and well-being that it has a relationship with meaning of life (41). Likewise, King et al. found that positive affection was strongly related to meaning in life, and positive affection lead to enhanced meaning in life. Beside of that they suggest that positive mood assists in a readiness for the experience of meaning (42). Thus, consideration of the global meaning has powerfully influence on thoughts, actions, and emotional responses of persons (43). Moreover, a study has demonstrated that meaningful activities are often associated with enjoyment (44). Hence, it can be argued that positive activities could elevated the meaning of life.

Also, a research findings show that PPIs increase the life satisfaction in elderly adults participants. Even though studies that have targeted life satisfaction are infrequent, there are similar studied investigating the subscales and other aspects of PPIs. Layous et al. demonstrated that kindness counts result in increasing in life satisfaction, happiness, and positive effect in clients (45). Also, Snef et al. indicated that gratitude and strengths-based interventions have influence on increasing happiness and decrease depressive symptoms compared to a control group (46). It should be notified that life satisfaction is an important construct in positive psychology and one of the most stable components of subjective well-being. a recent study found that life satisfaction has negative correlations with stressful life events, externalizing, and internalizing behavior; and positive correlation with many positive outcomes, including superior interpersonal, cognitive functioning, and the highest level of social support from all sources (47). In other words, the increase in positive emotions and thoughts results in enhancing personal resources such as social relationships and physical health that, in turn, predicts increasing life satisfaction in overall (48).

Conclusion

The findings revealed that the PPIs significantly increase the meaning of life and the satisfaction in ageing clients living in nursing centers. In this study, authors implemented the positive psychology concepts for elderly participants including special therapy package. Previous studies examined similar methods mostly for younger people. In addition, we assessed the impact of the intervention on two vital psychological factors; meaning of life and life satisfaction. This therapy brings the older people to

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talk about their life events, share successes and failures; and create an atmosphere of friendship and warmth between them. We recommend that the group positive psychotherapy can be applicable for ageing people who are living in nursing home.

Study limitations

The research encountered with some limitations, the small sample size and the cultural considerations. So studies with larger sample which encompasses multiple nursing centers is recommended as in this study the sampling was carried out on only one nursing home. The meaning of life and satisfaction are related to cultural context so, further studies should consider culturally Iranian psychological concepts and techniques pointing out the effect of hope, happiness, goal setting and optimistic view in the positive psychology and human being life.

Conflict of interest

The authors declare that they have no conflict of interests.

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