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Research Article

The Impact of Coping Strategies on Mental Health of Elderlies Referring to Older People Association in Jahrom, Iran

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Abstract

Nowadays, the mental health of elderlies is treated as a world concern. Since coping strategies are effective in mental health by mitigating stress and depression, they also have an impact on the mental health of elderlies. This study aimed at examining the impact of teaching coping skills on the health of elderlies, as well as the effectiveness of teaching these skills in reducing emotional conflicts and mental stresses among elderlies. This study was conducted using a descriptive method within a convenient sampling method and two experimental and control groups throughout pretest and posttest. The statistical sample comprises 70 elderlies referring to Old People Association (OPA) in Jahrom, Iran. The selected subjects received four 1.5-hour sessions (per week (four weeks)) of teaching positive coping strategies. To collect data, General Health Questionnaire (GHQ-28) was used. T-test and paired t-test were employed for data analysis. To compare mean scores before, and after intervention in experimental and control groups, a correlation test was used, and then the relationship between mean scores of mental health and demographic variables was determined through SPSS11.5 software. The results indicated a significant difference between pretest and posttest scores regarding indicators of mental health, including somatic health, anxiety, depression, and social function. Also, mental health improvement was observed in elderlies after they received the intervention.

Keywords: Coping Strategies, Impact, Mental Health, Elderlies, Social Function

Introduction

The aging phenomenon is one of the inevitable events in human life [1]. Aging is not just related to a certain group of people but all individuals will experience it [2]. Aging is the result of the natural course of time, which leads to physiological, mental, and social changes.

Due to the decline in fertility rate and life expectancy in the current century all around the world, elderlies have received more attention. According to statistics, there is a higher growth rate in the population of elderlies rather than other age groups [3]. The current estimate of the population

of people older than 60 is about 600 million people in the world. This rate will become double by 2025 and will reach 2 billion people by 2050 [4]. According to statistical and demographical indicators, the aging trend in Iran is expanding. There will be an aging explosion around 2031 if this trend continues in Iran so that about 20-30% of the Iranian population will be older than 50 by 2031 [5].

Senility is a sensitive period of life, which requires paying more attention to the relevant needs and problems of elderlies. It is a social necessity to consider the demands and needs of elderlies [6]. Elderlies may face many problems, such as somatic problems, motor impairments, and mental-psychological problems [1]. There are numerous psychological problems during senility that affect the mental, emotional, and behavioral status of elderlies [7]. In this regard, Salehe Mortazavi and colleagues carried out a study entitled "assessing the mental health status of elderly in Shahrekord and relationship with sociodemographic factors. They found that mental disorders are significant problems among the elderly, and more than 50% of old people face such problems [4].

Considering the increasing growth in the number of elderlies and prevalence of mental disorders, especially depression among them, as well as the high shortage of elderly-specific services, internal and external sources of individuals should be taken into account to cope with aging conditions [7]. Coping strategy is a concept that is widely considered in health psychology [8].

Since severe and chronic stress can affect the adjustment ability of people [9], coping strategies are one of the substantial intermediaries in stress and anxiety procedures. Coping strategies include attempts of individuals that are done to control or manage a life full of stressful situations [10]. Coping strategies are defined as cognitive-behavioral efforts that individuals seek for them to face stressful situations. Lazarus and Folkman describe coping strategies with two forms of problem-focused coping and emotion-focused coping. In problem-focused coping, individuals perform actively to solve the problem, while in emotion-focused coping, individuals tackle stress emotionally [11].

There are various types of problem-focused and emotion-focused copings. Problem-focuses coping consist of planning, getting help, acquiring knowledge, consultation, forgetting other activities to concentrate on problem-solving, re-interpretation of problem-based on a positive style seeing it as an opportunity for social growth and maturity. Emotion-focused might be adaptive or maladaptive. Different types of adaptive emotion-focused copings include praying, relaxing, sense of humor. Maladaptive emotion-focused copings also include some types, such as alcohol consumption or drug abuse, etc. maladaptive emotion-focused coping strategies not only cannot solve the problem but also result in social and mental harm. On the contrary, adaptive emotion-focused coping reduces stress temporarily. However, emotion-focused coping can relieve the patient while it cannot solve the problem [12]. White assumes that when people are under the stress, they should have the necessary coping strategies to mitigate stress levels. Accordingly, the person can cope with life needs and challenges better if stress is managed and effective coping strategies are provided [13].

Many studies have reported similar relationships between problem-focused coping and positive mental health, as well as emotion-focused coping and weak psychological adjustment [14]. Accordingly, a problem-focused coping strategy is introduced as the most appropriate and adaptive method for stress control. Therefore, there is a direct association between the problem-focused coping and mental health of individuals, while the emotion-focused strategy may reduce the attempts of the individual to solve the problem. Hence, an emotion-focused strategy cannot help the individual with their problems. In some cases, the problems might become more chronic and severe. Therefore, emotion-focused coping is not an appropriate strategy for stress control so it can be only used in uncontrollable situations. Hence, a problem-focused coping strategy is a best and optimal method [15]. Glass and colleagues conducted a study on 1262 people older than 65 and found a significant correlation between the overall score of stressful events and scores of depression scale [16].

Manzouri and colleagues reported the prevalence of depression (7.63%) among elderlies living in Isfahan, Iran by using the geriatric depression scale and found 7.40% and 23% of elderlies with moderate and severe depressions, respectively [17].

According to statistics, depression is one of the most common psychological disorders of the elderly making them commit suicide, which constitutes 34% of successful suicided cases [18]. Since stress and mental pressures are some of the prevalent disorders among the elderly while many psychological symptoms, such as depression and anxiety among elderlies are ignored, unfortunately. Sometimes, these symptoms are mistaken as parts of senility. Such ignorance may cause subsequent severe issues during aging [19]. In this case, teaching coping strategies can help the elderly with their emotional conflicts and mental pressures. As a biological process of life that reduces the physical and mental ability of the elderly, geriatric makes individuals vulnerable to any stressful situation; hence, the elderly should receive more attention and solutions to solve their problems and issues [20]. Since a major part of the life of the elderly includes adjustment and coping with relevant geriatric changes using accurate methods [21] and since all of these skills and strategies can be learned, it is possible to add them to the treasury of coping strategies by spending more time and energy [22]. Accordingly, the health-medical system of many developing countries, such as Iran should pay more attention to elderly cares taking it as a national responsibility. The health needs of the elderly are assumed to be similar to those of young people, while they are different needs and specific elderly needs, and their vulnerability requires more attention from health staff [23]. Regarding the abovementioned points and the importance of mental health of the elderly as respected people of the society, this study was conducted to examine the effectiveness of coping strategies to improve the mental health of the elderly.

Method

In the first step, subjects were selected based on the inclusion criteria and their written consent (Appendix I) by using the convenient sampling method. Then, the author visited the selected subjects and introduced herself to them the explained the research and objective briefly. In the next step, the selected subjects filled out the demographic characteristics form and a mental health questionnaire (General Health Questionnaire: GHQ-28) (Appendix II). The subjects were assigned to experimental and control groups based on their obtained scores (>23) regarding the cutoff point of GHQ. The completed questionnaires were coded to follow ethical principles and to prevent any possible bias. Then, the subjects were assigned to experimental and control groups based on the stochastic numbers. In the next step, experimental groups (n=17) received four 1.5-hour sessions of intervention (positive coping strategies) per week (for 4 weeks) (Appendix III). In the first part of each session, the previous techniques were reviewed to ensure that subjects have learned the interventions. At the end of each session also training subjects related to the main context of that session was given to the experimental group. Members of the experimental group were asked to study and remember the taught methods. To determine the effectiveness of the intervention, the questionnaires were again filled out by experimental and control groups one month after holding training sessions. The data collected from questionnaires were statistically analyzed. Furthermore, guidebooks of training sessions containing coping strategies were given to subjects in the control group at the end of the intervention regarding the ethical principles.

Statistical Population

The statistical population of the study comprised all of the elderlies referring to OPA in Jahrom, Iran.

Sampling Method and Sample Size

Studying the impact of coping skills on the mental health status of students at the confidence level of 95% and power of 80%, as well as mean and standard deviation after intervention for experimental (26.40, 10.85) and control (34.31, 10.08) groups, the sample size was estimated equal to 30. Statistic specialists increased the sample size to 35 subjects due to the likelihood of falls.

Data collecting tool

Data analysis was done based on descriptive and analytical statistics through SPSS11.5 software. Descriptive statistics include frequency, frequency percent, mean, standard deviation, and analytical statistics. T-test was used to compare the mean scores of the two groups. Paired t-test also was employed to compare mean scores before and after intervention in each of the experimental and control groups. A correlation test was used to determine the relationship between the mean score of mental health and demographic variables.

Validity and Reliability of the Questionnaire

General Health Questionnaire (GHQ): this 28-item questionnaire was developed using factor analysis by Goldberg and Hillier. This questionnaire includes four scales, including somatic symptoms, anxiety, social dysfunction, and depression. Each scale includes 7 items that are scored based on different methods. For instance, items are scored based on 0, 2, 1, and 3, and the overall score equals 84. In this method, the cutoff point equals 23. The validity and reliability of this questionnaire were confirmed in Iranian and foreign studies [26].

Inclusion and Exclusion Criteria

Inclusion criteria:

1. The elderly of 60-74 age
2. Participation in research with the consent
3. Having at least elementary school literacy
4. Ability to understand educational subjects

Exclusion criteria:

1. Lack of tendency to continue participation
2. More than 2 sessions of absence
3. Severe vision and hearing problems
4. Those individuals who face a stressful event when completing the questionnaire
5. Those individuals who have mental diseases (based on the interview with patients)
6. Those who have participated in workshops on coping strategies.

Ethics Code and Approval Number of Plan

Jums.rec.1393.025

Implementation Method

After ethical considerations were followed and an introduction letter was obtained, the author went to Jahrom's OPA and obtained permission from relevant officials then took the following steps:

In the first step, subjects were selected regarding the inclusion criteria (60-74 years old elderlies, consent-based participation in the research, having at least elementary school literacy, and ability to understand educational subjects). The subjects were chosen using convenient sampling based on their consent. Then, the author visited the selected subjects and introduced herself to them then explained the type of study and its objective briefly. Then, the subjects completed demographic characteristics form and GHQ-28. The subjects were assigned to experimental and control groups based on their obtained scores (>23) regarding the cutoff point of GHQ. The completed questionnaires were coded to follow ethical principles and to prevent any possible bias. Then, the subjects were assigned to experimental and control groups based on the stochastic numbers. In the next step, experimental groups (n=17) received four 1.5-hour sessions of intervention (positive coping strategies) per week (for 4 weeks). In the first part of each session, the previous techniques were reviewed to ensure that subjects

have learned the interventions. At the end of each session, also training subjects related to the main context of that session was given to the experimental group. Members of the experimental group were asked to study and remember the taught methods. To determine the effectiveness of the intervention, the questionnaires were again filled out by experimental and control groups one month after holding training sessions. The data collected from questionnaires were statistically analyzed. Furthermore, guidebooks of training sessions containing coping strategies were given to subjects in the control group at the end of the intervention regarding the ethical principles.

Results

Totally, 70 elderlies participated in the study. The average age of subjects in experimental and control groups equaled 65.57 and 66.40, respectively. Moreover, there was an average number of 4.69 and 5.43 children in experimental and control; groups, respectively.

According to the comparison between experimental and control groups based on the Chi-square test, there was not any significant difference between experimental and control groups regarding demographic characteristics ($P>0.05$). Therefore, two experimental and control groups were similar demographically. Results of the independent t-test did not indicate any significant difference between the two studied groups in terms of age and number of children ($P>0.05$) (Table 1).

According to results of baseline status before intervention Table 2, there was not any significant difference between mean scores of mental health scales of studied subjects in two experimental and control groups based on the independent t-test ($P>0.05$). Accordingly, two groups had similar situations before receiving the intervention.

Table 3 reports the comparison between mean scores of mental health scales completed by two experimental and control groups before and after the intervention. Results indicated a higher reduction in scores of all dimensions in the experimental group compared to the control group. Accordingly, the intervention had higher effectiveness in improving the mental health of the experimental group.

There was a significant difference between mental health status' subscales, including somatic symptoms, anxiety, social function, and depression ($P<0.001$). It worth noting that descending trend in scores of somatic symptoms, anxiety, depression, as well as ascending trend in sore of social function after intervention implied improvement of mental health in this research.

Table 1. Comparison between absolute and relative frequency distribution of studied subjects based on some demographic characteristics of two experimental and control groups

Groups / Variable	Test		Control		P-value
	N (35)	Percent (100%)	N (35)	Percent (100%)	
Sex					
Male	8	22.9	3	8.6	0.10
Female	27	77.1	32	91.4	
Marital status					
Single	2	5.7	1	2.9	0.57
Married	20	57.1	17	48.6	
Widow	13	37.1	17	48.6	
Education level of patient					
Below diploma	31	88.6	32	91.4	0.84
Diploma	2	5.7	2	5.7	
Above diploma	2	5.7	1	2.9	

Education level of spouse					
Below diploma	33	94.3%	31	88.6%	0.69
Diploma	1	2.9%	2	5.7%	
Above diploma	1	2.9%	2	5.7%	

Table 2. Comparison between mean scores of mental health and its subscales in studied subjects before intervention

Group / Variable	Test		Control		P-value
	Mean	SD	Mean	SD	
Mental health (general)	45.60	9.66	44.28	9.81	0.574
Somatic symptoms	11.71	4.0.3	11.48	3.97	0.812
Anxiety	12.54	4.13	11.62	4.24	0.365
Social function	13.31	3.02	12.94	3.18	0.618
Depression	8.02	3.82	8.22	3.54	0.821

Table 3. Comparison of changes in mean scores of mental health scales among studied subjects after intervention

Mental health scales	Time / Group	Before intervention		After intervention		P-value
		Mean	SD	Mean	SD	
Mental health	Experimental	45.60	9.66	28.85	7.30	0.001*
	Control	44.28	9.81	39.20	8.37	
Somatic symptoms	Experimental	11.71	4.03	5.22	2.52	0.001*
	Control	11.48	3.97	10.57	3.28	
Anxiety	Experimental	12.54	4.13	3.17	4.11	0.001*
	Control	11.62	4.24	12.48	4.03	
Social function	Experimental	13.31	3.02	19.40	5.85	0.001*
	Control	12.94	3.18	7.74	2.99	
Depression	Experimental	8.02	3.82	1.05	1.39	0.001*
	Control	8.22	3.54	8.40	3.859	

Discussion and Conclusion

Since geriatric is not a group-specific phenomenon but is a sensitive period of life, it is a social necessity to pay attention to needs and problems related to this life stage. On the other hand, a comprehensive study should be done in this case due to the increasing number of elderly, and prevalence of mental disorders, special depression among old people, as well as the severe shortage of elderly care. In this regard, the physical and mental needs of the elderly should be satisfied by providing them relevant services. The purpose of this study was to examine the effectiveness of coping strategies in promoting the mental health of the elderly.

According to the findings of the present paper and previous studies, as well as the reviewed literature, the extant research was consistent with those studies that found a positive and direct relationship between the effectiveness of coping strategies and mental health. The extant paper was in line with the study conducted by Sadeghi Movahed and colleagues (2008) entitled "effect of coping skills training on the mental health of students. They studied 80 students of Ardabil University of Medical Sciences [24]. Accordingly, coping skills can reduce symptoms of mental disorder, especially somatization of symptoms and anxiety of students suspected of mental disorders. This result was matched with the findings of the present study. Moreover, these teachings showed similar results with findings obtained from the training provided in the research conducted by Shyrbym and colleagues (2008) that studied the effectiveness of stress management training for increasing student mental health [25]. Results of both studies indicated that stress management skills training could increase mental health, and mitigate somatic symptoms, anxiety, social dysfunction, and depression. Furthermore, the results of the present paper were in line with results obtained by Fakhar and colleagues (2008) who studied the role of group counseling with a logo-therapeutic approach on the mental health of older women (65 years old and older) living in Kahrizak Sanatorium in Tehran, Iran. Results of these two studies showed that the application of coping skills could effectively promote the mental health of the elderly living in sanatoriums.

This study was conducted to examine the impact of coping strategies on the mental health of 70 elderlies referring to OPA. Findings indicated the effectiveness of coping strategies in the healthy life of the elderly. This study used an independent t-test, paired t-test, Chi-square, and correlation at the significance level of 0.05 and found that there was not any significant difference between demographic characteristics, age, education level of the spouse, number of children, sex, marital status, education level of elderlies, and their mental health before and after the intervention. In other words, demographic variables had no impact on mental health.

According to changes in mean scores of mental health scales in two experimental and control groups before and one month after intervention, teaching strategies to cope with risk factors and improvement of mental health indicators had a positive and growing impact on the health status of elderlies.

Moreover, findings showed a significant difference between somatic symptoms and anxiety, social function, and depression regarding mental health status before and after intervention ($P<0.001$). In other words, there was an improvement in the mental health of elderlies after intervention and teaching coping strategies.

Therefore, coping strategies can mitigate the prevalence of mental disorders among elderlies, especially depression and anxiety that are risk factors for suicide in the elderly. These strategies also can be taught to control the loss of physical and mental power of the elderly since such loss makes them the most vulnerable social strata.

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