



## Original Article

# Effectiveness of Mindfulness-Based Compassion Therapy on Despair and Rumination in Older Adults

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## ABSTRACT

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**Introduction:** Hopelessness and negative rumination are among issues the older adults cope with it. Examining effective therapy strategies to decrease them are of great importance. The current study was conducted with regard to understanding the importance of this issue. It aims at examining the effectiveness of mindfulness-based compassion therapy on hopelessness and rumination among the female elderly.

**Methods:** It was a semi-experimental study with pre-test and post-test and a control group. Statistical population was 70 elderly females of over 60 and above in nursing home in Bojnurd City, North Khorasan Province, Iran, in 2020. Among these people, 30 individuals willing to participate in the study were introduced by the center's psychologist and randomly assigned into two experimental (15) and control (15) groups. Instrument for collecting data was Beck Hopelessness Scale and Hooksma rumination questionnaire. Data obtained from the questionnaires were analyzed by the covariance analysis test.

**Results:** Results suggested that mindfulness-based compassion therapy led to a significant decrease on mean scores of hopelessness regarding the experimental group in comparison with the control group ( $p < 0.01$ ). However, it did not have a significant effect on rumination.

**Conclusion:** Mindfulness-based compassion therapy may be used for decrease of hopelessness regarding aging, but it is not effective for rumination.

**Keywords:** Compassion, Mindfulness, Hopelessness, Rumination, Female Elderly

## Introduction

Old age is not always ideal and soothing and the elderly undergo a great deal of hopelessness in this period (1). Hopelessness is a negative feeling happening frequently among the older adults and is usually related to the failure of doing the activities they can't deal with as they did when they were younger (2). They soon stop working due to fear of failure (3). Old age is accompanied by feeling of rejection, depression, decrease of mood and social interaction and waiting for death (4). They feel hopeless about many things and are emotionally offended and discouraged (5). Hopelessness is among the most important factors predicting depression especially among the elderly (6, 7). Hopelessness is also a feature of depression during which

the person feels incompetent and worthless (8-10). It negatively affects the feeling of functionality, self-esteem, suitable interaction with others, achieving life goals and finally, leads to depression (2, 11, 12). Therefore, hopelessness is a common problem among the elderly accompanied by serious and inevitable consequences. To decrease them, it is essential that various educational and therapeutic programs be considered.

Another variable increasingly considered in recent years as an important and effective component on depression is rumination. Rumination is distinguishable from other cognitive processes and products such as negative automatic thoughts, self-focused attention,

personal awareness and worry (13). Rumination is defined as an intellectual style with features like repetitive, recurrent, disturbing, and uncontrollable thoughts (14) that distract the person's attention from given issues and current goals. Rumination blocks adaptive solving problem and, finally, leads to the increase of negative thoughts (15). These thoughts cause abnormality in the people' cognitive underpinnings and may lead to mental incompatibility, negative feelings like anger and stress (16), psychological and emotional distress, worry, negative metacognitive beliefs (17) and decrease of mental-social abilities among the elderly (14). So, rumination and hopelessness are two concerns among the elderly. According to their physical-psychological consequences, the necessity of planning suitable psychological interventions in this regard is obvious. One new therapy that can be useful in this context is compassion-focused therapy accompanied by mindfulness (14).

Compassion is self - and others' non-judgmental perception, self- and others' non-conditional acceptance and finally, self and others' forgiveness and a method to encounter pain and suffering. This can lead to the improvement of the quality of social communication and inter-personal intimacy (18) and understanding evolutionary framework of the elderly's challenges (20). Mindfulness is also non-judgmental and a balanced feeling of awareness that helps to see clearly and accept emotional and physical changes as they happen. It is a way to decrease negative emotions (stress, anxiety) by breathing and thinking (20). Research indicated that mindfulness led to decrease of psychological distress and anxiety symptoms (20) and improvement of mental, physical, emotional, spiritual and self-efficacy welfare (21). Moreover, it decreases depression symptoms of the elderly females (9, 10). On the other hand, studies demonstrated that compassion-based therapy is effective on the ability to tolerate ambiguity and death' anxiety (22); hence, it can be said that mindfulness-based compassion therapy plays a key role on decrease of hopelessness and rumination among the elderly while the issue was not much considered in previous studies. Overall, one can say that rumination and depression symptoms are interrelated (13) and their combination leads to various non-compensatory consequences such as suicidal thoughts. With regard to their prevalence among the elderly (3), investigating effectiveness of suitable therapeutic models is very important; therefore, the current study, by understanding the importance of the issue, seeks to answer if mindfulness-based compassion therapy is effective on decrease of hopelessness and rumination among the elderly.

## Method

### Study design and participants

Current study is an applied one that was done by semi-experimental in 2020. The statistical population of the study was all the old people residing in nursing home of Bojnord, North Khorasan Province, Iran. In the center, there were 70 elderly females. Among them, 30 individuals who volunteered to participate in the study

were introduced by the center's psychologist. They were randomly assigned into two experimental (15) and control (15) groups.

Willingness to participate in the study, ability to speak Persian (with regard to being multi-language), non-addiction to drugs, cigarette, etc., and lack of psychological disorders (amnesia, dementia, Alzheimer), relative motor and speech ability and not having sensory-motor diseases were the inclusion criteria of the study. Lack of cooperation to answer questions, experiencing undesirable conditions during therapy or hospitalization, and being absent more than one week were the exclusion criteria.

### Instruments

Beck Hopelessness Scale (BHS): The questionnaire was developed by Aaron T Beck in 1979. It is a 20-item scale with true (0) or false (1) answers. The scale assesses three aspects of hopelessness: Person's feeling toward future (questions 1, 4, 6, 10, 13, 15 and 19), lack of motivation (questions 2, 3, 9, 11, 12, 16, 17 and 20) and expectations (5, 7, 8, and 14). It is designed for people from 18- to 80. A Chronbach's Alpha of 0.96 was reported by the designer. In Iran, Gharayi in his study, while obtaining face and content validity by retest method equal to original model, obtained the scale reliability as 0.93 (23). In the current study, the Chronbach' Alpha coefficient was 0.82.

Rumination questionnaire: It is a 22-item scale developed by Nolen-Hoeksema et al. in 1991. The questionnaire assesses three aspects of rumination: distraction (questions 1, 2, 3, 4, 6, 8, 9, 14, 17, 18, 19 and 22), contemplation (questions 7, 11, 12, 20 and 21), and self-immersion (questions 5, 10, 13, 15 and 16). Questions are scored based on a 4-point Likert scale (newer = 1, sometimes = 2, often = 3, always = 4). In the test, the range is between 22 and 88 (cut point = 55). The scale's credibility is between 0.88 and 0.92 regarding Chronbach' alpha coefficient. This suggests high internal consistency of the scale. To assess validity, intra-class consistency was reported as 0.75. Also, retest correlation for the time period of more than 12 months was reported as 0.67 (24). Also, in a study by Hooshi et al., the given questionnaire was validated and done among Iranian aged population (25). In another Iranian study that was done among older adults, Chronbach' alpha was reported as 0.90. In the present study also Chronbach' alpha coefficient was obtained as 0.90.

### Intervention

Eight 90-minute group sessions were assigned for the experimental group. Therapy method was based on the compassion therapy package (9, 24), compassion-focused therapy book (18, 20) along with mindfulness exercises (23), and their summary which are provided in the following:

First session: Conceptualizing self-compassion training

Second session: Mindfulness training along with respiration and physical examination exercise, familiarity with the concept of depression and hopelessness and coping with them.

Third session: Compassion toward others, growing warm feelings, self-kindness, understanding the fact that others have also problems and deficiencies, being mindful of a, the effect of mindfulness on breathing on facilitate the possibility of increased focus.

Forth session: Self-consciousness and examining one's personality as a person with or without compassion, compassionate mind development exercises, forgiveness training, the importance of living in the moment, and how to free mind from past and future concerns and regrets.

Fifth session: Exercises for compassionate mind development and problem acceptance training.

Sixth session: Practical exercises to make a compassionate imagination, training methods to express compassion and apply the methods in daily life.

Seventh session: Writing compassionate letters for oneself and others, daily recording, considering a compassionate-based real setting, and self-care.

Eighth session: Training and exercising skills and conclusion.

#### *Statistical analysis*

For data analysis, the authors used statistics and covariance analysis indices by SPSS-24 software.

#### *Intervention*

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#### *Ethical Considerations*

To observe ethical consideration, all participants were attended into the study with informed consent; they were free to exit the study whenever they want.

All participants in the study received codes and their names and characteristics were not archived. Furthermore, the current study was conducted by receiving ethics code with number IR.YAZD.REC.1400.038 from University of Yazd.

#### **Results**

This study was performed on thirty elderly females > 60 years old in a nursing home in Bojnord. Two individuals among them were retired and others did not receive salary from any entity.

Mean age of participants was 77.93 (6.22) and the education level of them was as academic 3.3%, high school and diploma 6.6%, elementary 53.3% and illiterate 36.6% and 93.3% lived alone because of spouse death and only 3.3% were married.

To test the study's hypothesis, multivariable covariance analysis was used, results of which are presented in table 1.

Four multivariable covariance analysis tests, "Pilay Effect", "Wilks lambda", "Hotling Effect", and "the Largest Root" were calculated. The significance level of all four tests (0.001) was less than 0.01. This suggested minimum difference between a dependent variable (hopelessness and rumination) in experimental and control groups. In other words, mindfulness-based compassion therapy had a positive effect at least on one dependent variable.

Table 2 demonstrates that there is a significant difference between two experimental and control groups in the post-test phase regarding hopelessness among the elderly ( $p < 0.01$ ), but not rumination ( $p = 0.456 > 0.01$ ). In general, according to the findings, it can be said that mindfulness-based compassion therapy had a significant effect on hopelessness among the elderly, but not on rumination. With regard to partial eta squared, mindfulness-based compassion therapy can explain 40.2 percent of hopelessness among the elderly. Moreover, results of table 3 indicates that mindfulness-based compassion therapy explains 31.2 percent of the lack of motivation and 28 percent of expectations; however, mindfulness-based compassion therapy does not affect a person's feeling toward future. As partial eta squared (0.021) revealed, the level of predicting and explaining rumination through mindfulness-based compassion therapy is near zero.

Table 3 demonstrates that there isn't a significant difference between two experimental and control groups in post-test phase with respect to distraction, contemplation and self-immersion among the elderly ( $p > 0.01$ ).

**Table 1. Multivariable covariance analysis tests**

Tests	Value	F	Hypothesis df	Error df	p
<b>Pilay Effect</b>	0.974	335.759	3	27	0.001
<b>Wilks lambda</b>	0.026	335.759	3	27	0.001
<b>Hotling Effect</b>	37.307	335.759	3	27	0.001
<b>Largest Root</b>	37.307	335.759	3	27	0.001

**Table 2. Covariance analysis test results regarding effectiveness of mindfulness-based compassion therapy for hopelessness and rumination among the elderly**

Variable	Change sources	Total square between groups	df	Mean of squares	F	p	Partial eta squared
<b>Hopelessness</b>	Group	98.591	1	98.591	18.158	0.001	0.402
	Error	146.603	27	5.430			
<b>Rumination</b>	Group	11.272	1	11.272	0.573	0.456	0.021
	Error	530.989	27	19.666			

**Table 3 Covariance analysis test results regarding effectiveness of mindfulness-based compassion therapy for aspects of hopelessness and rumination among the elderly**

Variable	Change sources	Total square between groups	df	Mean of squares	F	p	Partial eta squared	
<b>Hopelessness</b>	The person's feeling toward future	Group	2.548	1	2.548	2.533	0.123	0.086
		Error	27.167	27	1.006			
	Lack of motivation	Group	20.028	1	20.028	12.246	0.002	0.312
		Error	44.258	27	1.635			
<b>Rumination</b>	Expectations	Group	15.144	1	15.144	10.490	0.003	0.280
		Error	38.981	27	1.444			
	Distraction	Group	43.353	1	43.353	4.646	0.40	0.147
		Error	251.924	27	9.331			
<b>Rumination</b>	Contemplation	Group	1.993	1	1.993	0.623	0.437	0.023
		Error	86.332	27	3.197			
	Self-immersion	Group	21.012	1	21.012	5.427	0.28	0.167
		Error	104.543	27	3.872			

## Discussion

The purpose of this study is to examine effective therapy strategies to decrease hopelessness and negative rumination among the elderly females. This was carried out by examining the effectiveness of mindfulness-based compassion therapy on hopelessness and rumination among them. As the results illustrated, mindfulness-based compassion therapy is effective on decrease of hopelessness among the elderly; but it doesn't significantly affect rumination. The obtained findings are consistent with some previous studies (19, 20, 22, 28). At the same time, other studies, such as those by Noorbala et al. (24) and Ghanavati et al. (27) suggested that compassion-based therapy could decrease the level of clients' rumination, worry, anxiety, and stress. This is inconsistent with the current study.

To explain the given results, it can be said that aging necessitates preparation. Adjusting to it, therefore, requires special expectations and priorities (28). People with high self-compassion are kind with themselves. Besides, they are more responsible when facing problems and more easily accept life events. Compassion-based therapy, by developing and

improving compassion by providing compassion-based techniques, recognizing self-kindness thoughts, and also removing compassion barriers, protect the person against negative feelings and improve and increase positive feelings. As compassion increases, motivation also increases and this, in turn, leads to acceptance of negative thoughts and modifying them (18). Compassionate and mindfulness-based cognitive therapy, by increasing the level of self-compassion, facilitates emotional change for more care and self-support, increases the ability of discomfort acceptance, and decreases emotional distress (3). In addition, compassion-based therapy develops new positive thoughts, emotions and behaviors that are opposite with negative thoughts and emotions accompanied by depression, anxiety and self-criticism. On the other hand, nature and content of exercises of mindfulness-based therapy should be addressed. In these exercises, relaxation, peaceful and compassionate mind, and mindfulness are confirmed. They can play a significant role on the person's peace and hopelessness especially among the elderly. To increase compassion against effects of negative events, individuals should act as a fighter. People

with high self-compassion, have self-assessment, are not hard on themselves, and cope more easily with negative problems in life (22). Therefore, they have more self-compassion, less self-blame and criticism, and decrease their own negative thoughts (19). All of these lead to the decrease of hopelessness and increase of ambiguity tolerance.

With regard to non-effectiveness of mindfulness-based compassion therapy on the aspects of rumination (distraction, contemplation, and self-immersion) among the elderly, rumination aims at decreasing emotional distress (13) and keeps people in the highest level of emotional wave. When people judge themselves, they hope to resolve their deficiencies and mistakes. In reality, however, they experience higher dysfunctionality and chronic depression (14). On the other hand, mindfulness-based compassion therapy approach, by increasing subjects' level of self-compassion, can facilitate emotional change for more self-care and support, increase the ability to accept discomforts and decrease emotional distress. In fact, by training emotional self-discipline and emotional control, therapy can help people to adjust with their unsuitable behavior and improve their mental health (18). This is while it has less effect on cognitive and intellectual categories and these aspects have deeper thought roots. Accordingly, its effect is not significant on rumination.

## Conclusion

With regard to the findings, the authors suggest that for the elderly, especially those without a spouse and caregiver, special counseling and support services and suitable therapies and educations be designed and accomplished to decrease problems such as hopelessness. Mindfulness-based compassion therapy is recommended for this purpose.

## Study limitations

One limitation of the current study is that self-report instrument (questionnaire) was merely used. Besides, it is always possible that data obtained from self-report can be affected by social desirability biases and the study's participants may not report their real ideas and behaviors. More objective measurements are recommended for future studies.

## Conflict of interest

There was no conflict of interest. Authors had no financial relationships relevant to this paper. None of the authors received support for this work influencing its outcome.

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## Authors' contribution

Marjan Kalatian, author: article design, draft preparation, article's review and modification. 60%.

Maryam Salehzadeh, co-author: Cooperation in the study design and data analysis and interpretation, cooperation in the study's draft preparation and its accurate review and modification. 20%.

Alireza Bakhshayesh, co-author: Cooperation in the study design and data analysis and interpretation, cooperation in draft preparation and modification. 20%.

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