Metacognitive Training for Older Adults with Depression: A Brief Review

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DOI: https://dx.doi.org/10.47772/IJRISS.2025.905000431

Received: 05 May 2025; Revised: 14 May 2025; Accepted: 17 May 2025; Published: 20 June 2025

ABSTRACT

Background: Ageing affects all human beings and is a progressive and irreversible process. The elderly are particularly vulnerable to depression, as the ageing process has its own circumstances that are risk factors for the development of the illness. Around 10% of the elderly population suffer from depression, but this figure can rise to 40% in elderly people who are institutionalized. Methods: We opted for a conceptual discussion of metacognitive training in elderly people with depression. Findings: There is a clear need to intervene in older people with depression, not only because of their potential for recovery, but also because of the contribution they can continue to make to society and because of their right to health. Metacognitive training in older people with depression is an intervention that aims to intervene in the cognitive errors associated with depression, through metacognition, which can reduce depressive symptoms by enabling people to manage negative thoughts and other symptoms associated with depression. Implications: This intervention can be included in the overall care plan.

Keywords: Older adults; Depression; Depressive symptoms; Psychotherapeutic intervention; Metacognitive training

INTRODUCTION

Depression is a common mental disorder that affects around 280 million people worldwide, with an estimated global prevalence of 10.4 per cent of adults and 5.7 per cent of people over the age of 60 (World Health Organization, 2021), however, this figure can rise to 40% in older adults who are institutionalized (Kurniawidjaja et al., 2022; Silva et al., 2023).

Depression is a mental disorder manifested by persistent sadness, despair, pessimism, loss of pleasure or interest in previously enjoyable activities and depressed mood (American Psychiatric Association, 2014).

Older adults are at particular risk of developing depression due to age itself, as older age is also associated with a greater volume of depressive symptoms (Atzendorf & Gruber, 2022; Mistry et al., 2021).

In addition, a recent longitudinal study concluded that a third of older people with multimorbidity had depressive symptoms. It also concluded that, among various multimorbidity clusters, those in which one of the pathologies was depression had greater deficits in Activities of Daily Living and Instrumental Activities of Daily Living than those in which only somatic pathological situations were present (McClellan et al., 2021; Quiñones et al., 2018).

Metacognitive Training in the Older Adults with Depression (MCT-Silver) is an intervention based on cognitive-behavioral intervention (CBI) that aims to intervene in the cognitive errors associated with depression, through metacognition, and which can reduce depressive symptoms by enabling people to manage

negative thoughts and other symptoms associated with depression (C. Schneider et al., 2018; B. C. Schneider et al., 2024).

The MCT-Silver approach differs from the CBI approach in that the former focuses on metacognitive functioning, i.e. how the person thinks about their thoughts (metacognitions), rather than the specific content. It seeks to modify maladaptive thinking styles such as rumination, excessive worry and threat monitoring. CBI, on the other hand, focuses on the content of thoughts. The central idea is that distorted thoughts lead to dysfunctional emotions and behaviors. Treatment aims to identify, challenge and restructure these negative automatic thoughts (C. Schneider et al., 2018; B. C. Schneider et al., 2024).

The area of mental health and psychiatry is a field of intervention with increasingly complex challenges, and in this field, older people are a particularly vulnerable group regarding depression.

The Ageing Process

Ageing is a natural, progressive, dynamic and irreversible phenomenon that happens to people throughout their lives, from birth to death. It brings with it physical, biological, social, economic, cultural, environmental, historical and psychological changes (Chang et al., 2017; Strulik, 2023).

In developed countries, an older person is considered to be aged 65 or over, while in developing countries, an older person is considered to be aged 60 or over (J. H. B. Oliveira, 2005; OMS, 2005).

Globally, the population aged 60 and over is growing faster than other age groups, with an average growth rate of 3% per year. In 2017, it was estimated that 962 million people worldwide were aged 60 or over, representing 13 % of the global population. According to UN forecasts, this percentage will reach close to 26% by 2050 and close to 39% by 2100, except on the African continent (ONU, 2023).

Ageing is marked by various changes that can differ from individual to individual. However, there are certain physical changes, such as variations in skin, hair, nails, sight, hearing, muscle strength and bone density, which are common. A decline in cognitive abilities can also occur, leading people to face difficulties with memory, attention and the speed with which they process information. There may be an increased vulnerability to disease, as the immune system can become less effective with age, leaving the body more prone to infections and illnesses. Changes in the emotional sphere can also occur, as older individuals often encounter emotional challenges, such as dealing with personal losses and confronting issues related to the mortality of relatives and friends, as well as the person themselves. In addition, ageing brings changes in social relationships, such as retirement and the creation of new roles in the family (Amarya et al., 2018; Chang et al., 2017; Schmauck-Medina et al., 2022; Strulik, 2023).

Although aging is inevitable, there are actions that individuals can take to promote healthy aging and improve their quality of life over the years. This can include a balanced diet, regular physical activity, brain exercises and involvement in a social support network. It is essential to realize that old age can be a time of opportunity and personal development (Schmauck-Medina et al., 2022; Strulik, 2023).

Ageing and depression

The relationship between aging and depression is a complex and multifaceted subject. Ageing is a natural and irreversible phenomenon that happens during the lives of all individuals (Chang et al., 2017; Strulik, 2023).

The risk factors identified for the development of depression are multidimensional in nature and have been extensively studied.

The literature identifies female gender as common risk factors for the development of depression (Chao et al., 2022; Robbins et al., 2022; Voss et al., 2021), older age (Atzendorf & Gruber, 2022; Briggs et al., 2021; Maurer et al., 2018), the loss of loved ones (Gong et al., 2018; Srivastava et al., 2021), the appearance of

physical health problems (De Leo, 2022; Maurer et al., 2018), social isolation (Cho et al., 2019; Silva et al., 2023), loneliness (Domènech-Abella et al., 2019; Zhao et al., 2018), hormonal and neurological changes (Dwyer et al., 2020; Russell et al., 2019), presence of medical comorbidities (Maurer et al., 2018; Segura-Cardona et al., 2019), dependence on other people (Disu et al., 2019; Iloh et al., 2018), the presence of insomnia (Irwin et al., 2022; Maurer et al., 2018), retirement (Kail & Carr, 2020; Li et al., 2021), low level of education (Mistry et al., 2021; Voss et al., 2021), low socio-economic status (Disu et al., 2019; Economou et al., 2018) and the stigma associated with mental health that can lead to a lack of seeking help and treatment for depression, as self-stigma is often a reality (Arnaez et al., 2020; Yang et al., 2020).

Depression in older adults is associated with higher rates of disability, greater use of health services and higher health costs (Bartels & Naslund, 2013).

It can therefore be concluded from the above that the world's population is ageing, and that depression affects a significant percentage of the population, which has a strong impact on older people.

The health of older adults can worsen both physically and mentally, especially by favoring the emergence of depressive symptoms and, consequently, depression.

Metacognitive training in older adults with depression

The great complexity of the factors that influence mental health, especially depression, the variety of clinical expressions and the urgency of acting in the prevention and rehabilitation of affected individuals demand organized healthcare models, with interventions based on scientific evidence.

The choice to treat depression with drug monotherapy is a reality due to the limited resources of mental health services. However, it is a restricted therapeutic alternative due to the side effects of medications, excessive use of medications and low patient compliance (L. G. de Pinho et al., 2023), in addition to the relapse rate, which can reach approximately 56% after stopping drug treatment (Kishi et al., 2023).

The pharmacological treatment of depression in isolation is a limited and insufficient option to provide an adequate response to older people with depression, and therefore, in order to respond to this problem, it is necessary for mental health professionals to implement psychotherapeutic interventions and for these to be an integral part of care management plans for depression. (Carvalho Pereira de Melo & Pereira de Melo, 2021; Mommaerts, 2022).

In addition, international guidelines suggest both psychotherapeutic interventions and the use of medication in the treatment of depression and advise the simultaneous adoption of both strategies, since the most effective result is obtained through the combination of psychotherapy and pharmacotherapy (Jobst et al., 2016; Weightman, 2020).

A recent systematic review and meta-analysis of randomized controlled trials and non-randomized studies concluded that person-centred care is more effective than standard healthcare, improving depressive symptomatology, self-management outcomes and quality of life, and also increasing the likelihood of depression remission (John et al., 2020).

“Metacognition”:

The concept of “metacognition” has aroused increasing interest, both in research and in the advancement of psychotherapeutic techniques, and is used to broadly describe the understanding of the regulation of the cognitive process (Flavell, 1976; Moritz et al., 2018). The concept of “metacognition” can be described as “reflecting on one's own thinking” or “thinking about thinking”, originating from the Greek: meta = “above” and Latin: cogitare = “to reflect” (Moritz et al., 2018).

Metacognition arises from cognition and refers to the act of reflecting on thinking. This process comprises a series of mental functions, in which the person has the ability to reflect on their own thinking, predicting results and setting goals to achieve adequate performance in their tasks, through self-monitoring and self-regulation (Meiner & Gomes, 2014).

The broad definition of metacognition encompasses fundamental elements of perception and information processing, as well as higher cognitive functions, and concerns both the content and processes of cognition. Working on metacognition raises older people's awareness of cognitive biases that alter the perception of information, such as the propensity of patients with depression to underestimate their neurocognitive performance (Flavell, 1976; B. Schneider et al., 2022).

Metacognitive training for older adults with depression

Metacognitive training was created by Stefen Moritz and his team. It was initially aimed at psychosis and, with its application and evolution, it has been updated and adjusted for other mental conditions (Moritz et al., 2011).

MCT-Silver is a group intervention based on the cognitive-behavioral approach, whose main goal is to enable participants to identify and adjust their automatic and dysfunctional thinking patterns, as well as their behavior. In this way, it aims to reduce depressive symptoms by confronting cognitive beliefs (the content of depressive thinking) and metacognitive beliefs (general thinking mechanisms) through creative and stimulating exercises (C. Schneider et al., 2018; B. C. Schneider et al., 2024).

Through metacognition, a therapeutic approach that encourages “thinking about thinking”, metacognitive training mainly aims to teach the recognition of cognitive distortions and develop alternative ways of thinking, enabling people to better manage their symptoms, which is already a very positive step forward (L. M. G. de Pinho et al., 2020; Moritz et al., 2011).

There is evidence of the effectiveness of this type of intervention, both in relapse situations and in remission and reduction of depressive symptoms, when compared to other therapeutic interventions, such as drug therapy, or in cases of comorbidities (L. da S. S. C. B. de Oliveira et al., 2019).

A pilot study in Germany determined that MCT-Silver not only significantly reduced depressive symptoms, but also dysfunctional attitudes, with the effect size for changes in depressive symptoms being considerably higher than that perceived for dysfunctional attitudes (C. Schneider et al., 2018). These results were later confirmed by a randomized controlled trial also carried out in Germany (B. C. Schneider et al., 2024).

MCT-Silver is made up of eight sessions (modules) that deal with prejudices, frequent cognitive distortions, behaviors and metacognitive beliefs in the information processing of older people with depressive symptoms. All the content is supported by research that relates these processes to symptoms of depression and to depression itself. The MCT-Silver sessions are as follows:

- Module 1: Thinking and Reasoning I - Mental filter and overgeneralization (Mathews & MacLeod, 2005; Moritz et al., 2008). It aims to identify and modify selective perception (i.e. the mental filter) and exaggerate generalizations of negative experiences.
- Module 2: Memory - Mood-congruent memory / false memories (Mathews & MacLeod, 2005; Moritz et al., 2008). It aims to normalize and explain concentration and memory problems and increase awareness of memory biases.
- Module 3: Thinking and Reasoning II - “Should” statements (Egan et al., 2011; McGrath et al., 2012) and disqualification of the positive (Cane & Gotlib, 1985; Elliott et al., 1997), as well as acceptance of negative feelings (Hayes et al., 1996; J. Butler & Ciarrochi, 2007). It aims to encourage participants to question rigid and perfectionist behavior, and to introduce the concept of accepting negative feelings.

- Module 4: Values (Hayes et al., 2006; Isaacowitz & Seligman, 2002; Wrosch et al., 2013). Its aim is to identify personal values.
- Module 5: Thinking and Reasoning III - Exaggeration/Minimization (Cane & Gotlib, 1985; Garber & Hollon, 1980; Hoehn-Hyde et al., 1982; Wenzlaff & Grozier, 1988) as well as Depressive Attribution Style (Carver & Ganellen, 1983; Wenzlaff & Grozier, 1988). It aims to identify and modify prejudices when judging the extent and consequences of perceived successes and failures.
- Module 6: Behaviors and Strategies - Ruminations and Thought Suppression (Rood et al., 2009; Seidel et al., 2010; Wells, 2011). Its aim is to reduce the dysfunctional behaviors associated with depression and to develop new behaviors that are useful for dealing with situations.
- Module 7: Thinking and Reasoning IV - Jumping to conclusions (Miranda et al., 2008; Strunk et al., 2006). It aims to identify cases in which hasty conclusions are drawn, and to encourage the consideration of multiple sources of information before reaching a conclusion.
- Module 8: Self-esteem (Davey et al., 2004; Holmes et al., 2016; Orth et al., 2009). It aims to communicate strategies for improving self-esteem and reducing and modifying unfair comparisons (for example, with the younger self).

All MCT-Silver information and materials are available free of charge, so that mental health professionals who are willing to participate in validation studies of this intervention in their countries can contact the project promoters[1].

We are not aware of any other MCT-Silver validation studies completed outside Germany. We know that validation is underway in Portugal.

The overall goal of MCT-Silver is to get participants to recognize empirically grounded, condition-specific cognitive biases and change them. This covers biases in the interpretation and perception of information, and particular dysfunctional beliefs, as well as assumptions about thoughts and approaches to better manage these thoughts. This training therefore aims to improve participants' metacognitive knowledge, mainly by creating metacognitive experiences with the help of playful activities (Moritz et al., 2018; B. C. Schneider et al., 2024).

This non-pharmacological intervention was not designed to replace individual therapy or to be used in isolation, but rather as an effective complementary tool in the general therapeutic management to be applied to elderly people with depressive symptoms.

MCT-Silver is a psychotherapeutic intervention that appears to have significant potential in reducing depressive symptoms, but needs further research to validate its efficacy more robustly. (C. Schneider et al., 2018). Preliminary findings suggest that MCT-Silver is effective, which means that this intervention will be another therapeutic option available to healthcare professionals.

As more research connects MCT-Silver to reduced depressive symptoms in older adults with depression, this intervention may become a valuable psychotherapeutic tool for clinical practice by healthcare professionals.

CONCLUSIONS

Non-pharmacological interventions often address multiple aspects of emotional well-being, encompassing emotional, social, and spiritual needs, which can be especially beneficial to participants. (Indra Maulana & Hesti, 2023).

These interventions can be beneficial for improving mood and can act as effective adjuncts to more conventional therapies, enhancing overall treatment outcomes. (Farah et al., 2016; Zbidi et al., 2023).

MCT-Silver is a low-intensity, organized intervention with all resources available and free of charge. This intervention is cost-effective and can help health services respond to the growth of the elderly population in the coming years.

As future implications, MCT-Silver could influence a paradigm shift in psychotherapies away from emphasizing the content of thoughts (as in CBT) towards a more efficient focus on mental regulation processes. This could lead to more direct, brief and effective therapies for various mental disorders.

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FOOTNOTES

[1] https://clinical-neuropsychology.de/metacognitive-training-for-depression-mct-silver/