Review

Peer Group Support Application in Overcoming Depression in the Elderly: A Narrative Review

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Peer Group Support Application in Overcoming Depression in the Elderly: A Narrative Review

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Abstract: Depression in the elderly is a public health problem that is often significantly undetected and untreated which can lead to increased use of health facilities and even death, social support also plays an important role in behavioral change and self-management in the elderly in dealing with depression. This review aims to explore the effectiveness of peer group support applications in overcoming depression in the elderly. The narrative review approach with the Arksey and O'Malley methodological framework and the PRISMA 2020 diagram formulates how peer group interventions can help reduce depression levels in the elderly. The articles reviewed were selected using inclusion criteria such as elderly population, focus on older adults, depression, treatment, peer group interventions, social support, and using a randomized controlled trial (RCT) design. Data sources include databases such as PubMed, ScienceDirect, Scopus, Google Scholar, Sage, Crossref, and Ebscohost with a publication year range of 2020-2024. A total of 10 articles that met the criteria were obtained through strict selection from 520 initial articles. Based on the systematic review that has been conducted, the results obtained show that there is effectiveness of peer support-based approaches in various contexts, ranging from sports, education, to Cognitive Behavioral Therapy training. Differences in results indicate the diversity of intervention designs and subject populations, but the majority of studies show significant benefits in reducing depression in the elderly, in addition to the results of the narrative review there are also benefits to the quality of life, cognitive function and mental health of the elderly.

Keywords: depression; narrative review; peer group support

1. Introduction

Depression in the elderly is a public health problem that is often significantly undetected and not treated properly, which can lead to increased use of health facilities and can even cause death. [1] . [2] . In the elderly, depression is one of the most common mood disorders, with a significant impact on quality of life, increasing morbidity, disability, and mortality [3] . According to World Health, 2023a depression also brings a great burden to individuals and society such as decreased productivity, disturbed interpersonal relationships, and high risk of suicide.

According to global data, the prevalence of depression increases with age, with women three times more at risk than men [5] . The prevalence of depression in the elderly reaches 19.2% [6] , with the highest rate in Southeast Asia, especially in Indonesia, where more than 24.9% of the elderly are reported to experience depression [7] . The elderly, especially those over 85 years of age, show a higher risk due to various factors, including changes in their lives such as retirement, chronic illness, or loss of a partner. According to World Health, 2023a People with chronic illnesses may also experience depression due to difficulties in managing their health conditions . Depression is influenced by a variety of factors, including social, family, school, living environment, as well as psychological and genetic factors . [8] . In addition, difficulty in recognizing symptoms of depression

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in the elderly often occurs, considering that they tend to report physical complaints compared to emotional symptoms.

Symptoms of depression in the elderly can include persistent sad or depressed mood [9] , fatigue [10] , loss of interest [9] , sleep disturbances [11] , cognitive impairment [12] , psychomotor changes [10] , changes in appetite [13] . feelings of worthlessness [12] , to suicidal thoughts [14] . However, these symptoms often overlap with other health problems such as dementia, complicating the diagnosis. As conveyed by GNM Gurguis in his research that the diagnostic criteria for mental illness are not adapted to the elderly, which causes problems in diagnosis both related to the separation of different disorders and normal psychological reactions [15] . Factors that cause depression in the elderly include biological, psychological, and social factors, all of which are interrelated in worsening the condition of depression in the elderly. Biological factors can be associated with changes in the brain and hormonal function, such as decreased serotonin and endorphins [16] , [17] . Psychological factors are associated with boredom, stress , bad mood [18] , and developmental disorders [17] . Meanwhile, social factors are associated with lack of social support and social isolation [19] .

In Indonesia, challenges in managing depression in the elderly include limited primary health workers in detecting depression and low participation of the elderly in community-based health services [20] , [21] . Programs such as posbindu and posyandu for the elderly have been attempted but their utilization is still not optimal. The less than optimal utilization of these programs is associated with factors that influence participation including knowledge, attitudes, education, traditions, beliefs, family support, and access to information. [20] , [22] . Multifaceted approaches, such as peer support, psychosocial interventions, and physical activity have been shown to be effective in improving the mental health of the elderly [23] , [24] . Peer support, in particular, plays an important role in providing a sense of belonging, increasing adaptive coping, and reducing loneliness, all of which contribute to effective management of depression. Peer support has many positive effects including improving health, personal competence, coping skills, sense of well-being, self-esteem, decreasing anxiety and depression, and improving quality of life [25] .

In addition, social support also plays an important role in behavioral change and self-management in the elderly in dealing with depression [26] . This support includes social resources from individual networks that can increase self-confidence, encourage healthy behavior, and strengthen self-efficacy [27] , [26] . Many studies have shown that good social support can reduce psychological stress, improve self-management, improve proactive disease management , and reduce depressive symptoms [27] . In addition, the relationship between social support, depression, and self-management is significant where individuals with good social support are more likely to engage in active self-management activities [28] .

Self-care management as implemented in *the Components of Self-Management of Depression* (CDSMP), has been shown to be effective in improving the mental and physical health status of the elderly. CDSMP includes important components such as social support, communication, motivation, and healthy lifestyle [29] . Psychosocial interventions such as cognitive behavioral therapy and problem-solving therapy also have a significant and effective impact in reducing depressive symptoms in the elderly [30] , [31] . This combination of interventions supports the needs of the elderly to manage their health independently and improve their quality of life. In addition to these approaches, the *Mind-Body approach* combines physical exercise with meditation such as yoga and tai chi can improve the physical and psychological health of the elderly [32] . These exercises not only reduce symptoms of depression and anxiety but can also improve sleep quality and social interaction [32] , [33] , [34] . With the integration of social support, psychosocial interventions, and physical activity, this holistic approach can be an effective strategy in managing depression in the elderly .

2. Method

The study used a narrative review approach, using the methodological framework outlined by Arkey and O'Malley. Researchers used the PRISMA (Preferred Reporting Items for Systematic Review and Meta-Analysis) Flow chart 2020 diagram to document the literature screening process. The review taken was an article about peer groups or social support in overcoming depression in the

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elderly. Several steps taken in this study are: 1) determining eligibility criteria, 2) determining sources of information, 3) selecting research, 4) data collection process, 5) selecting data items. The data used in this study are secondary data obtained not from direct observation, but obtained from the results of research that has been conducted by previous researchers. Searching for articles and journals uses keywords that are used to expand or define the search, making it easier to determine the articles or journals to be used .

2.1. Eligibility Criteria

The eligibility criteria consist of inclusion criteria and exclusion criteria. Inclusion criteria are set as a review guideline, namely :

- Population of elderly age,
- The article discusses depression in the elderly,
- interventions discuss peer groups or social support
- Full text complete
- Quantitative research,
- Study design using randomized control trial
- Articles published in 2020-2024.

2.2. Resources

Articles used in this study were obtained from online database sources Sage (15 articles), Pubmed (121 articles), Science direct (90 articles), Ebscohost (102 articles), crossref (51 articles), Scopus (91 articles), Google Scholar (50 articles), Science Direct (5 articles). Articles will be removed if they are non-specific peer group or social support article interventions, not Randomized Controlled trial design studies, full text is not complete. In addition, researchers also adjust the article to the research questions that have been made .

2.3. Study Selection

Study selection is carried out in three stages, namely :

- Keywords used in the article search included: “Social support” AND “Depression” AND “Elderly”, “Peer group” AND “Depression” AND “older adults”, “Treatment” AND “Depression” AND “Elderly” AND “Randomized Control Trial”, “Peer group” AND “Depression” AND “Elderly” AND “Randomized Control Trial”, “Social support to reduce depression in the elderly from 2020 to 2024” .
- Article selection uses the publication year filter, namely 2020-2024
- Article selection was based on abstract content, title, and keywords in articles about peer groups or social support in overcoming depression in the elderly .
- Articles that have been selected based on title, abstract, and other inclusion criteria will be further critically analyzed using the Joanna Briggs Institute (JBI) instrument for Randomized Control Trials to determine the eligibility of the articles. Articles are evaluated based on the following criteria which, as recommended by the JBI manual, were decided and agreed upon by all authors: (i) “High quality” if all criteria are met; (ii) “Moderate quality” if one or more criteria are unclear; (iii) “Low quality” if one or more criteria are not met. Conflicts in quality scores were resolved through discussion and consensus among researchers .

2.4. Data Collection Process

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Data collection was done manually, including article title, year of publication, population, intervention, data analysis and results. Data collection of articles by reading data through full text. The articles obtained were assessed by researchers whether the article was relevant or not .

3. Results

3.1. Study Selection

The results of the article selection were obtained with a total of relevant articles according to the established criteria, namely 10 articles from 2020 to 2024. In the first stage, the author obtained 520 articles according to the established criteria. After that, the researcher conducted a review of duplicate articles, 119 articles were declared duplicates. Furthermore, the author adjusted the article through the abstract by removing the article if it was not on topic, the population was not relevant, using a Systematic review or meta analysis, and not quantitative research, the screening results obtained 90 articles, then screening through full text using the Joanna Briggs Institute (JBI) instrument for Randomized control trial studies and 10 selected articles were obtained. Can be seen in Figure 1 below.

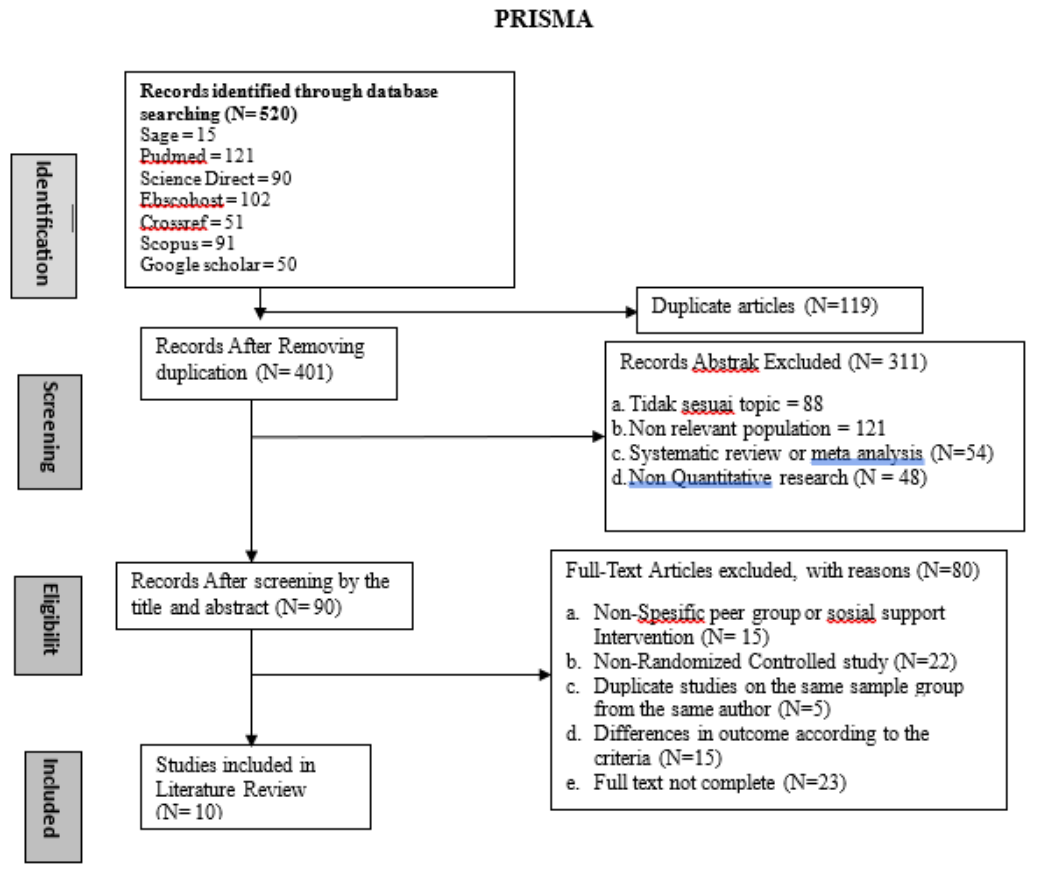

Figure 1. Results of the PRISMA Flow.

3.2. Characteristic Study

A total of 10 articles were found from several online databases and the results were adjusted to the established criteria as shown in the following table.

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Table 1. Journal Analysis Results.

Author, Year	Participant	Participant Age	Instrument	Study design	Intervention	Details Topic and Activity (week)
Daniel W. et al, 2020 [35]	I : 30 C: 30	Community-dwelling seniors aged > 65 years	De Jong Loneliness Scale-6, Lubben Social Network Scale (LSNS) , General Depression Scale (GDS-4), Geriatric Anxiety Inventory – Short Form (GAI-SF), Connor-Davidson Resilience Scale two items (CD-RISC 2)	RCT	Peer-based intervention	This study used two groups, namely the intervention group and the control group, where the intervention group received peer support intervention for eight weeks and the control group only received short telephone calls from the program coordinator over an eight-week period.
Jenna ST, et al. 2024 [36]	I: 8 C: 8	Older adult women with an average age of 72 years	Social Support Survey (SSS), EQ-5D VAS using 10-point VAS, Patient-Specific Functional Scale (PSFS), Physical Activity Enjoyment Scale	RCT	AgeMatchPLUS (peer support groups guided by a Qualified Exercise Professional (QEP), AgeMatch: Peer support groups without QEP guidance	The intervention group of older women participated in approximately 150 minutes of moderate to vigorous physical activity per week. Participants were paired with a partner who was provided with peer support guidance, exercise guidance, and a Fitbit Inspire©. The intervention group involved dyads communicating and supporting each other during exercise, independently structuring their communication (mode and frequency) with their matched partner. Together, the dyads also participated in weekly virtual sessions using Zoom where they received support from a qualified exercise professional (QEP) for 10 weeks. Each session lasted up to 1 hour. The control group was asked to communicate and support each other independently regarding exercise during the 10-week intervention period without the assistance of a qualified exercise professional (QEP).

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Katie Crist, et al, 2022 [37]	I: 6 C: 6	Elderly ≥ 60 years	ActiGraph GT3X+ Accelerometer, Perceived Quality of Life Scale (PQoL-20), 6-Minute Walk Test (6-MWT), Center for Epidemiologic Studies Depression Scale (CESD-10)	RCT	Community-based interventions (PEP4PA)	Trained PHCs lead group walks twice a week, review progress toward step goals and barriers with participants, and organize activities and events to maintain motivation. They are responsible for communicating educational tips and leading group discussions designed to provide social support, share successes and benefits, address walking challenges, and identify strategies to overcome barriers. UC San Diego research staff meet with PHCs weekly for the first 3 months, biweekly for months 3–6, and then monthly thereafter to provide support. PEP4PA participants are guided in goal setting, self-monitoring, and additional effective SCT behavior change strategies as they work toward individual step goals.
Susan J. et al. 2020 [38]	I: 25 C: 25	Elderly ≥ 60 years	Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC), Short Form 12 (SF12),	RCT	CBT-based interventions	Intervention participants received a 3-month peer-delivered, telephone-administered program. Attention control participants received a general health advice program delivered by peers.
Li Polly, et al. 2022 [39]	I: 116 C: 113	The average age of the elderly is 74.4 years	Neuropsychological tests, Alzheimer's Disease Assessment Scale–Cognitive Subscale (ADAS-Cog) 11 items, Short Form 36 Health Survey (SF-36)	RCT	Peer-supported exercise interventions	The intervention group received an 8-week peer-supported, group-based multicomponent exercise intervention, while a wait-list control group received usual care. A battery of neuropsychological tests and the Short Form-36 were administered at baseline, immediately after the intervention, and 3 months after the intervention.
Merchant et al, 2021 [40]	197 participants	Elderly aged 60 years who live in the community	MoCA, FRAIL, SPPB, LSNS-6, geriatric depression scale, EuroQol questionnaires	RCT	HAPPY Program	HAPPY is a dual-task exercise program adapted from cognicise, which originated at the National Center for Geriatrics and Gerontology in Nagoya, Japan. Cognicise is a multicomponent exercise program that combines physical, cognitive, and social activities with the goal of improving cognition in older adults with mild cognitive impairment. The exercise

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						component includes low-to-moderate intensity circuit and resistance training as secondary outcomes focused on physical function performed in pairs. The exercises are performed for 60 minutes once or twice a week depending on the location and preference of the center and the availability of volunteers, and are led by a health coach or volunteer.
Mohammadbeigi et al, 2021 [41]	70 elderly	Seniors with an average age of 73 years	DASS-21 Questionnaire	RCT	Peer group education involving training in relaxation and stress reduction techniques	Intervention group, relaxation and stress reduction program trained through peer group. Control group received routine care
Misook Hong, et al, 2022 [42]	32 people	65 year old elderly	Geriatric Depression Scale Short Form (GDSSF), Interpersonal Needs Questionnaire-Revised (INQ-R) Korean version, Suicidal Ideation (Suicide Ideation) using the Scale for Suicide Ideation (SSI).	RCT	Life-Love Program Intervention	Using the term "Life-Love" to reduce resistance to participation and increase accessibility. Activities include: music therapy, therapeutic recreation, aromatherapy, arts and crafts, horticulture therapy, cooking, and laughter therapy, designed to improve interpersonal relationships. Educating participants with more accurate and positive thoughts, and keeping a journal as a monitoring.
Jung Ae-Ri, et al, 2023 [43]	40 elderly participants	Elderly aged ≥ 60 years	Los Angeles Loneliness Scale (R-UCLA). Geriatric Depression Scale Short Form - Korean Version (GDSSF-K). Laughter Index Laughter Index Scale 30 items.	RCT	LAP Intervention Program (Loneliness Alleviation Program)	The LAP (Loneliness Alleviation Program) consists of 12 sessions delivered twice a week for 6 weeks. Participants watch YouTube Videos delivered twice a week via mobile phone text messages and messenger to learn related content and practice it. The first session of the program, face-to-face introduction and instructions on how to watch YouTube videos and booklet distribution, then participants are given worksheets to fill out if they have watched the videos and equipment for horticulture therapy. **Sessions 2** to 12 of the program are delivered via YouTube videos, and the program content consists of smartphone use, horticulture therapy, medication

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						management, laughter therapy, music exercise therapy, and sleep relaxation.
Su-Jung Liao, 2022 [44]	143 respondents	Elderly aged ≥ 60 years	Center for Epidemiologic Studies Depression Scale (CES-D) CES-D, Brief Symptom Rating Scale (BSRS-5) to measure five items of symptoms of anxiety, depression, hostility, interpersonal sensitivity/inferiority, and insomnia. Life Satisfaction Index (LSI) LSI	RCT	ICM (Integrated Care Model) Intervention	The interventions were summarized in the following domains: Assessing and managing health problems, Achieving spiritual and mental well-being, Improving activities of daily living and mobility, Providing social well-being and Providing prevention of elder abuse. The interventions were implemented over a 12-week period.

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3.3. Quality Assessment

The studies conducted by this article all used a randomized control trial (RCT) study design and the Tool for Assessment used The JBI Critical Appraisal Tool for RCTs so that the following results were obtained. RCT studies conducted by Daniel W. et al, 2020 [35] , K. Crist et al, 2022 [37] , Merchant et al, 2021 [40] , Misook Hong, et al, 2022 [42] , Jung Ae-Ri, et al, 2023 [43] , Su-Jung Liao, 2022 [44] were rated as moderate quality mainly because some of the outcome information was unclear. And studies conducted by Jenna ST, et al. 2024 [36] , Susan J. et al. 2020 [38] , Li Polly, et al. 2022 [39] , Mohammadbeigi et al, 2021 [41] were classified as low quality because differences between groups in terms of follow-up were not described in detail and there was a lack of therapy concealment by the assessor. A summary of the risk of bias assessment is shown in Table 2.

Table 2. Quality assessment of included studies.

Author	Quality
Daniel W. et al, 2020 [35]	Medium quality
Jenna ST, et al. 2024 [36]	Low quality
Katie Crist, et al, 2022 [37]	Medium quality
Susan J. et al. 2020 [38]	Low quality
Li Polly, et al. 2022 [39]	Low quality
Merchant et al, 2021 [40]	Medium quality
Mohammadbeigi et al, 2021 [41]	Low quality
Misook Hong, et al, 2022 [42]	Medium quality
Jung Ae-Ri, et al, 2023 [43]	Medium quality
Su-Jung Liao, 2022 [44]	Medium quality

4. Discussion

The results of the journal search and analysis obtained 10 articles that met the criteria. Research by Daniel W. L et al. 2020 population, namely 60 elderly Chinese migrants living in the community aged 65 years and over who were randomly divided into 2 groups where the intervention group received peer support intervention for eight weeks and the control group only received short phone calls from the program coordinator over an eight-week period. The results showed that 30 participants in the intervention group showed a statistically significant decrease in loneliness and an increase in resilience when compared to 30 participants in the control group. They reported fewer barriers to social participation, fewer depressive symptoms, increased life satisfaction, and happiness while no such increases were observed in the control group. This study utilized a culturally relevant approach in supporting immigrant older adults. [35] Furthermore, Jenna Smith-Turchyn, et al. 2024 conducted a study with a sample size of 16 older adult women with an average age of 72 years and were randomly divided into 2 groups where one group received exercise guidance from a professional (QEP) and the other group did not receive guidance. The results showed that a virtual peer-supported exercise intervention for older women was feasible with a 100% retention rate and 95% compliance. The intervention increased social support related to exercise and enjoyment of physical activity, but did not show significant changes in moderate-vigorous physical activity

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(MVPA) volume. Most participants were satisfied with their support partners. [36] . In general, changes that occur in the elderly, both psychosocial, physiological, and mental, will have an impact on the low achievement of their quality of life. Over time, physical abilities in the elderly will decline and cause decreased performance in carrying out activities, thereby increasing dependence on the elderly which will have an impact on changes in humans, not only physical changes, but also cognitive, emotional, and emotional. social and sexual [45] .

The intervention carried out by Katie Crist, et al. 2022 is in the form of the PEP4PA (Peer Empowerment Program 4 Physical Activity) program, PEPAPA is a combination of empowerment theory components and cognitive social theory behavioral strategies using a multivele framework model, namely the individual level, peer relationships, organizations and environments. The number of samples was 12 elderly people aged 60 years or over who were divided into 2 groups. The results obtained were an increase in MVPA scores in the intervention group of around 10 minutes/day, there was no significant change in the 6-MWT distance or depressive symptoms, but there was an increase in quality of life (PQoL) in the 12th to 24th months. [37] In the study of Susan J, et al. 2020 with the number of subjects in the intervention group of 25 people and the control group of 50 elderly people. This article evaluates the management of Cognitive Behavioral Therapy (CBT) provided by peers. The intervention group received a 3-month program provided by peers and managed by telephone. While the control group received a general health advice program provided by peers. Significant results were seen in improving functional status, reducing pain, quality of life and reducing depression, although physiological parameters did not change much. [38] According to Li, Polly W, et al. 2022 that the intervention of an exercise program with peer support is very effective in improving executive function, memory and reducing depression. [39] .

Research conducted by Merchant, et al. 2021 with 197 elderly subjects. This study evaluated the HAPPY (*Healthy Aging Promotion Program for You*) program to improve cognition, physical function, depression and social health of the elderly with prefrailty. The results showed a significant increase in physical function, social isolation, depression and frailty status. [40] . In addition, research by Mohammad Beigi, et al. 2021 assessed Peer Education in the elderly in nursing homes. This study focused on reducing anxiety, stress, and depression through Peer Education. Participants in this study were randomly divided into 2 groups where the intervention group received Peer Education with relaxation technique training, while the control group only received routine care. The results showed that Peer Education significantly reduced anxiety, stress, and depression. [41] . Study of social support therapy with one of the Life-Love programs in reducing depression and perceived burden in rural elderly participants. The results revealed that participants in the intervention program significantly showed depression scores in the experimental group decreased from 9.68 to a normal level of 3.50, indicating no depression. This study focused on addressing issues that contribute to perceived burden through alleviating loneliness, fostering a sense of belonging, encouraging positive memories, and recognizing meaning in participants' lives through education and group activities. Positive conversation training may have helped participants resolve family and interpersonal conflicts, some of the major sources of perceived burden. Additionally, since we considered depression as a factor influencing perceived burden in older adults; its reduction may have contributed to reducing perceived burden [42] .

Psychological therapies can have positive effects on well-being that collectively contribute to reduced loneliness and depression. Interpersonal factors contribute to loneliness and depression in older adults and non-face-to-face interventions have been reported to help older adults build relationships with others can reduce loneliness and depression. [46] Interpersonal interventions with peers can foster a humor-oriented approach to social relationships and facilitate social interaction. Loneliness in older adults directly and indirectly affects depression through its relationship with peer social support. [47] Loneliness and depression are highly correlated, loneliness in older adults directly and indirectly affects depression through its relationship with social support. Therefore, minimizing the level of loneliness is necessary for the mental health of older adults. In a study conducted by Jung Ae-Ri, et al 2023 measured depression as an outcome variable along with loneliness and found a significant reduction in depression in the intervention group. Therefore,

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minimizing the level of loneliness is necessary for the mental health of older adults to prevent depression. [43] , [48] , [49] .

From the comparison of all the articles, it was found that most of the articles used a peer-based approach, either physically or virtually. All articles showed the benefits of peer interventions in domains such as physical function, quality of life, and reduction of psychological symptoms. However, some results showed a dependence on the intensity or duration of the intervention.

5. Conclusion

5.1. Implications for Practice/Healthcare

According to the results of the Narrative Review that has been conducted, the author concluded that there is effectiveness of peer-based support approaches in various contexts, ranging from sports, Education, to Cognitive Behavioral Therapy training. Differences in results indicate the diversity of intervention designs and subject populations, but the majority of studies show significant benefits in reducing depression in the elderly, in addition to the results of the narrative review there are also benefits to the quality of life, cognitive function and mental health of the elderly.

5.2. Implications for Research

The authors analyzed that peer-based support approaches have been shown to be effective in reducing depression and improving the quality of life of the elderly. Peer support also encourages adaptive coping strategies, strengthens social networks, and reduces social isolation .

Compliance with ethical standards: The author has no conflict of interest in this study.

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