Effectiveness of Community-Based Psychosocial Crisis Intervention in Elderly and Future Research Directions: Scoping Review

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Abstract. Psychosocial crises in the elderly can cause trauma, life crises, and disrupt psychological well-being. The elderly are vulnerable to psychosocial crises, so interventions are needed to prevent or solve problems. This study aims to determine the types of community-based psychosocial crisis interventions for the elderly. Based on a literature search on five databases, nine studies were found in the last five years that used community-based psychosocial crisis interventions and proved to be effective in the elderly. The programs included C4C, Assistive Technology Application, Qigong, Gardening, CCP, SoBeezy, Dance, BAILAMOS, and WE-RISE. Some of the intervention programs were used for the elderly with a diagnosis of mental illness and the general elderly. Community-based psychosocial crisis interventions are effective in older adults with or without a history of mental illness. This study also offers future research directions for further research.

Keywords: community; crisis intervention; elderly; program

Introduction

The global burden of depression is increasing, and the elderly population is at a higher risk of developing the disease (Cai et al., 2023). In many low and middle-income countries, health systems are unable to meet the demand for mental health care, which hurts the ability to identify and treat elderly populations experiencing psychosocial crises (Hummel et al., 2017). Gilliland and James explained a psychosocial crisis is an emergency that involves the instability of a person's emotions, thoughts, and behaviors due to the experience of a traumatic event, life crisis, or event that disrupts their psychological well-being (Kanel, 2010).

The elderly represent a demographic particularly susceptible to crises. In Indonesia, about three-in-ten (30.79%) households contain elderly, and half of these (56.73%) are heads of households

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(BPS, 2022). Global data shows that more than 20% of adults aged 60 years and over suffer from mental disorders, and 6.6% of all disabilities among people aged over 60 years are caused by mental and neurological disorders (WHO, 2017). Many research show that the elderly population, especially women affected by COVID-19, show greater vulnerability to psychiatric symptoms, so it is necessary to strengthen resilience resources, especially in elderly women (Janiri et al., 2022). Factors that affect the quality of life of an older adult include family support, peer support, living environment, physical health, psychological health, health services, marital status, economic level, education, and spirituality (Destriande et al., 2021).

Government efforts related to mental health policies continue to be made to improve the social welfare of the elderly population in Indonesia. In 2022, it was recorded that 13.99% of elderly households received the Family Hope Program (PKH), 19.15% had a social welfare card (KKS), 26.72% had received non-cash food assistance (BPNT), 7.83% had regional health insurance (JAMKESDA) and 1.62% received the social rehabilitation assistance program (ATENSI) (BPS, 2022).

In addition, community-based psychosocial crisis interventions are also relevant to help older people cope with existing crises. Forms of psychosocial interventions found, such as Prevention of Suicide in Primary Care Elderly: Collaborative Trial (PROSPECT), Problem Adaptation Therapy (PATH), Supportive Therapy for Cognitively Impaired Older Adults (ST-CI), and Outpatient Interpersonal Psychotherapy Tailored to Older Adults can reduce hopelessness and suicide risk in elderly (Zeppegno et al., 2019). Other forms of intervention for elderly groups can be in the form of educational activity, welfare and health programs, social networks, elderly meetings on health promotion, Thai chi qigong, The Increasing Social Competence and Social Integration of Older adults experiencing Loneliness (I-SOSIAL) and increasing social support with the Self-Mutual-Group (SMG) model can reduce loneliness in elderly groups (Fahrudiana & Kusbaryanto, 2019).

Intervention programs targeting issues in the elderly have not yielded the anticipated results. For instance, a prior research initiative focused on educational activities for groups of elderly individuals, but the pre-test and post-test results indicated minimal observable changes (Raihana et al., 2021). Furthermore, inconclusive studies related to psychosocial interventions in the elderly require improvements in research methodologies and intervention evaluation. This involves avoiding overly generalized intervention designs and customizing them more effectively to meet the specific needs of elderly (Kirvalidze et al., 2023).

Therefore, the purpose of composing this article is to examine the effectiveness of various psychosocial interventions. This serves as the researcher's endeavor to contribute to improving the health of the elderly population and as a consideration for other healthcare practitioners in designing subsequent intervention programs. This study has research questions, what are community-based psychosocial crisis interventions can be applied to the elderly, their effectiveness, and recommendations to improve further research?

Method

Inclusion Criteria

The criteria for this scoping review article are: 1) Articles that use experimental methods, 2) Published in the last five years, 3) Focused on elderly as participants, 4) Use psychosocial interventions in the experimental process, 5) Those written in English and open-access

Search and Data Sources

The data in this study used primary sources, which are journal articles. The databases used in this study include Scopus (2), ScienceDirect (1), PubMed (1), Emerald (3), and ProQuest (3). The keywords used in searching articles in the database are "Intervention", "Crisis", "Psychosocial", "Elderly", and "Community".

Quality Assessment of Articles

The stages in selecting articles used in this study include various stages in the PRISMA-ScR guide (Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews). In the initial stage, the researcher determines the main topic as the theme of the article search. Then, screening by determining the inclusion criteria. Furthermore, researchers determine the articles to be selected by screening the titles and abstracts of articles in the database so that the articles obtained will be reviewed comprehensively.
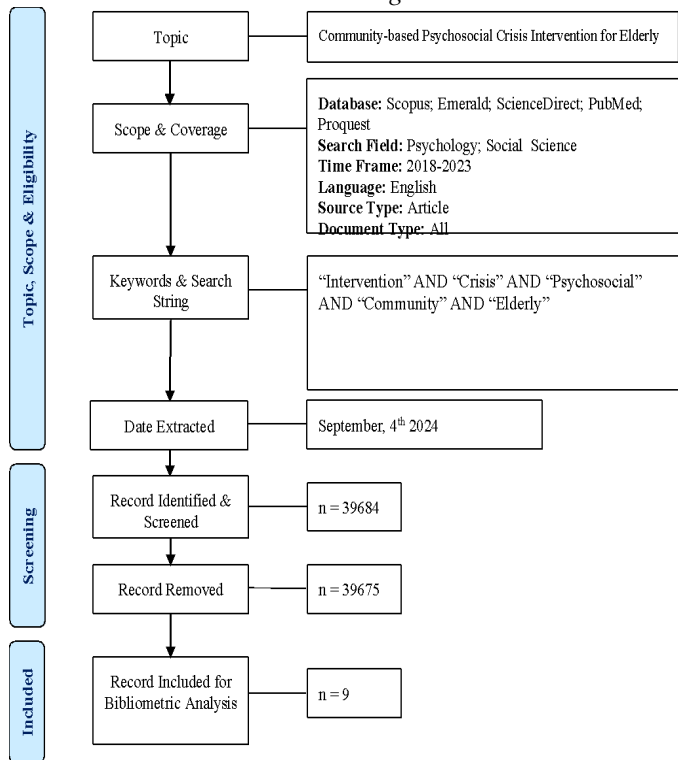
Data Extraction

The data used in this study included research characteristics (year, language, and open access), research design, methods, and results. Data extraction begins with determining the database to be used, followed by identifying keywords that correspond to the topic and research questions. Data extraction was conducted by seven raters across five databases. Furthermore, the data was screened using inclusion criteria, and abstracts of articles that matched the aims and research questions were read. Any differences of opinion among the raters were resolved through discussion to determine the articles to be included in the study. After obtaining the appropriate data or articles, the articles were comprehensively analyzed. The chart of the data extraction process is provided in Figure 1.

Result

This study used 9 journal articles taken from various database and has met the inclusion criteria. All articles used were published in the last 5 years, from 2018 to 2023. Studies were conducted in various regions of the world, which are in Asia have five studies (Kim & Jung, 2023; Murukesu et al., 2021; Phansuea et al., 2020; Sampoon et al., 2019; Sia et al., 2022), in America have two studies (Balbim et al., 2022; Scazufca et al., 2020) and in Europe have two studies (Jones et al., 2022; Pech et al., 2022).

Figure 1

Flowchart in Article Selection Using PRISMA-ScR Framework

Topic, Scope & Eligibility	Topic	Community-based Psychosocial Crisis Intervention for Elderly
	Scope & Coverage	**Database:** Scopus; Emerald; ScienceDirect; PubMed; Proquest **Search Field:** Psychology; Social Science **Time Frame:** 2018-2023 **Language:** English **Source Type:** Article **Document Type:** All
	Keywords & Search String	"Intervention" AND "Crisis" AND "Psychosocial" AND "Community" AND "Elderly"
	Date Extracted	September, 4th 2024
Screening	Record Identified & Screened	n = 39684
	Record Removed	n = 39675
Included	Record Included for Bibliometric Analysis	n = 9

The results of this study (Table 1) provide program benefits in various constructs such as physical activity (Balbim et al., 2022; Kim & Jung, 2023; Murukesu et al., 2021; Sampoon et al., 2019), cognitive function (Balbim et al., 2022; Kim & Jung, 2023), depression (Phansuea et al., 2020; Scazufca et al., 2020), psychological well-being (Murukesu et al., 2021; Pech et al., 2022), mental resilience (Sia et al., 2022), sleep quality (Phansuea et al., 2020), independence (Pech et al., 2022), and positive attitude (Jones et al., 2022).

Table 1

Journal Article Review Results

Author	Title	Intervention Program	Subject	Region
Participants with a History of Mental Illness or Disorders				
Jones et al. (2022)	Caring for Carers (C4C): Results from a feasibility randomized controlled trial of positive written disclosure	Caring for Carers (C4C) with Positive Written Disclosure	62 Elderly (mean:64 years)	England

Table 1 (Continued)

Journal Article Review Results

Author	Title	Intervention Program	Subject	Region
Kim and Jung (2023)	Effects of Assistive Technology Application in Dementia Intervention for People with Mild Cognitive Impairment & Mild Alzheimer Type Dementia and Caregiver	Assistive Technology Application	45 sufferers of Mild Cognitive Impairment (MCI) and Alzheimer Disease (AD) (≥75 years)	South Korea
Phansuea et al. (2020)	Effectiveness of Qigong Program on Sleep Quality Among Community-Dwelling Older Adults With Mild to Moderate Depression	Qigong Program on Sleep Quality	66 Elderly who experienced mild-moderate depression.	Thailand
General Participants				
Sia et al. (2022)	The Impact of Gardening on Mental Resilience in Times of Stress: A Case Study during the Covid-19 Pandemic in Singapore	Gardening	534 Elderly (>65 years)	Singapore
Scazufca et al. (2020)	A Collaborative Care Psychosocial Intervention to Improve Late Life Depression in Socioeconomically Deprived Areas of Guarulhos, Brazil: the PROACTIVE Cluster Randomised Controlled Trial Protocol	Collaborative Care Psychosocial (CCP)	25 Elderly in the control group and 33 Elderly in the intervention group	Brazil
Pech et al. (2022)	Lessons Learned From the SoBeezy Program for Older Adults During the COVID-19 Pandemic:Experimentation and Evaluation	SoBeezy	109 Elderly	France
Sampoon et al. (2019)	Application of Social Dance Exercise and Social Support	Social Dance Exercise	102 Elderly (>60 years)	Thailand
Balbim et al. (2022)	The Effects of the BAILAMOS Dance Program on Physical Activity Levels and Cognition of Older Latino Adults: A Pilot Study	BAILAMOS	57 Elderly (mean:66.4 years)	America

Table 1 (Continued)

Journal Article Review Results

Author	Title	Intervention Program	Subject	Region
Murukesu et al. (2021)	Physical Activity Patterns, Psychosocial Well-Being and Coping Strategies Among Older Persons with Cognitive Frailty of the "WE-RISE" Trial Throughout the COVID-19 Movement Control Order	WE-RISE	42 Elderly (>60 years)	Malaysia

Discussion

Effectiveness of Psychosocial Interventions

This study aims to find out the effect or effectiveness of community-based psychosocial crisis interventions for the elderly. This discussion will further review psychosocial crisis interventions that can be used to minimize the impact or prevent a crisis based on community intervention for the elderly. Interventions or programs that have been reviewed have various methods such as using applications (Kim & Jung, 2023; Murukesu et al., 2021), dancing (Balbim et al., 2022; Sampoon et al., 2019), and even gardening (Sia et al., 2022).

Psychosocial interventions have been provided in research using case participants such as in Kim and Jung (2023) research, which carried out experiments on using assistive technology applications to improve function and well-being in the elderly in South Korea. The experiment was carried out on 45 people with mild cognitive impairment (MCI) and Alzheimer's (AD) who were over 75 years old. The results of this study state that assistive technology applications can improve aspects of function and well-being in the elderly with MCI and AD in South Korea. The results obtained illustrate that there are differences before and after the intervention was given (pre-test and post-test) to the elderly group of MCI and AD.

The Mini-Mental State Examination-Korean (MMSE-K), assessing cognitive function, revealed statistically significant changes in the MCI group ($p < .001$, Meanpre-post-test = 20.79; 21,83) while the AD group exhibited only a non-significant increase in average value ($p > .05$, Meanpre-post-test = 14.31; 14.86). The Modified Barthel Index (MBI), evaluating basic daily activities, demonstrated statistically significant improvement (MCI: $p < .05$, Meanpre-post-test = 88.86; 90.52; AD: $p < .01$, Meanpre-post-test 63.13; 68.63). However, the Korean Instrumental Activities of Daily Living (K-IADL), assessing instrumental daily activities, did not exhibit any statistically significant differences (MCI: $p > .05$, Meanpre-post-test = 18.24; 18.44; AD: $p > .05$, Meanpre-post-test = 26.83; 26.18). The Geriatric Depression Scale Short Form-Korea Version (GDSSF-K) for measuring depression in the

elderly showed statistically significant positive effects in both MCI and AD groups (MCI: $p < .01$, Meanpre-post-test = 7.07; 5.83; AD: $p < .01$, Meanpre-post-test = 11.25; 10.13). Korea-Geriatric Anxiety Inventory (K-GAI), evaluating anxiety in the elderly, demonstrated statistically significant positive effects in both MCI and AD groups (MCI: $p < .001$, Meanpre-post-test = 4.79; 2.90; AD: $p < .001$, Meanpre-post-test = 8.31; 6.69). Additionally, life satisfaction showed statistically significant positive effects in both MCI and AD groups (MCI: $p < .001$, Meanpre-post-test = 20.79; 21.83; AD: $p < .014$, Meanpre-post-test = 14.31; 14.86).

The research of Phansuea et al. (2020) experimented on the Qigong Program on Sleep Quality in Thailand. This research assumes that the Qigong program is effective in improving sleep quality in older adults with mild-moderate depression. The experiment was carried out on 66 older adults who experienced mild-moderate depression and control group. The results show (Mean between-group difference; 95% CI) that the intervention group had a significant increase in subjective sleep quality (Mean = -.67, $p < .001$) and sleep latency (Mean = -.79, $p < .05$), but not effective on the sleep efficiency, sleep duration, sleep disturbance, daytime dysfunction, and use of sleeping medication. Qigong has been found to stimulate endorphin production, boost daytime energy levels, and improve nighttime sleep quality. Many practitioners report experiencing heightened vitality and improved mood stability. However, it is important to interpret these findings cautiously as they may not generalize to all healthy adult populations. Therefore, future studies should explore the efficacy and effectiveness of Qigong in improving sleep quality among older adults with various physical conditions (Phansuea et al., 2020).

Research by Jones et al. (2022) experimented with the Caring for Carers (C4C) program to determine the effect on changes in more positive attitudes among the elderly in England. The experiment was carried out on 63 elderly people with an average age of 64 years. The results of this research indicate that the C4C program, conducted over six months, had effects on positive written disclosure group intervention (PWD; $n = 21$), writing group control (W; $n = 21$), and no writing group ($n = 21$). Effect sizes from this study ranged from small to moderate compared to the no writing group. The C4C intervention influenced positive mood (dPWD = -.24; dW = -.62), negative mood (dPWD = .29; dW = .10), stress (dPWD = .18; dW = .30), anxiety (dPWD = .08; dW = .52), depression (dPWD = .000; dW = .25), career well-being (dPWD = -.18; dW = -.09), self-efficacy (dPWD = -.30; dW = -.28), and quality of life (dPWD = .34; dW = -.15).

Research with general participants, such as that conducted by Sampoon et al. (2019), shows an experiment on the effect of social dance exercises on the quality of life of the elderly in Thailand. This research assumes that social dance exercises and social support for the elderly can improve their quality of life. The experiment was carried out on 102 elderly who were over 60 years old and had no physical obstacles to carrying out a dance training program. The research showed a significant difference in the quality of life of the elderly before and after being given the intervention (Meanpre-test = 60.15, Meanpost-test = 95.82; t-test: 0.026; $p < 0.05$). Even so, research conducted by Murukesu et al. (2021) experimented on the WE-RISE program to compare the physical condition, activity patterns, psychological well-being and coping strategies of the elderly with cognitive weaknesses during the Movement Control Order (MCO) policy during COVID-19 in Malaysia. The experiment

involved 42 elderly aged over 60 years. The results of this study were that participants were more independent in functional activities (μ=1.76$\pm$1.73) compared to the control group (μ=5.57$\pm$8.31), had a higher self-perception in living life and increased psychological well-being among the elderly in Malaysia ($p < 0.05$).

Research by Sia et al. (2022) revealed an experiment on a gardening program to improve the mental resilience of residents in Singapore. This research assesses that the gardening program's benefits can improve Singaporeans' mental resilience. The experiment was carried out on 577 elderly people in the age group 65-74 years (n=512) and the age group >74 years (n=65). This research showed that participants who gardened had higher mental resilience than an online community group. This is evidenced by a higher score in the gardening group compared to the community buddies group across all age categories (<24 years, d = .29; 25-34 years, d = .44; 35-44 years, d = .34; 45-54 years, d = .26; 55-64 years, d = .13; 65-74 years, d = .11, >74 years, d = .39). Then, in the research of Scazufca et al. (2020), they experimented on the Collaborative Care Psychosocial (CCP) program to reduce levels of depression among the elderly in Brazil. The experiment involved 25 elderly in the control group and 33 in the intervention group. The results of this study show that the CCP program consisting of psychoeducation and the use of technology can reduce the level of depression among the elderly in Brazil.

The research of Pech et al. (2022) shows an experiment with the SoBeezy program to increase the independence and well-being of the elderly and their families in France. This experiment involved 109 elderly. The research shows that the SoBezzy program can be an alternative to increase the independence and welfare of the elderly and their families in France. Even so, the research of Balbim et al. (2022) conducted experiments with the BAILAMOS program to improve physical activity and global cognitive function in elderly Americans. The experiment was carried out on 57 elderly people with an average age of 66.4 years. The research results show that the BAILAMOS program can improve physical activity and global cognitive function in Americans elderly.

Based on several explanations related to research that has discussed using community-based psychosocial crisis interventions for the elderly, almost all programs effectively overcome or prevent crises experienced by elderly people in various regions worldwide. However, alongside the effectiveness of these interventions, some limitations can be used as references for further research.

Future Research Directions

This study also provides recommendations for future research that will be conducted related to the theme of community-based psychosocial crisis interventions among the elderly. The recommendations provided are based on a literature review of articles that include research limitations and suggestions for future research. The recommendations provided can be considered and applied to future studies so that mistakes or shortcomings of previous research can be corrected to provide detailed and comprehensive information.

Researchers who will use interventions in the form of social dance exercises need to investigate long-term effects and explore factors that can potentially influence the effectiveness of social dance

exercises (Sampoon et al., 2019). Then, suppose future studies aim to employ interventions utilizing assistive technology applications. In that case, it can increase the sample size (>45 participants) for generalization of program effectiveness, use longitudinal studies and add qualitative methods in research, conduct cost-effectiveness analysis, and use and compare various types of assistive technology applications (Kim & Jung, 2023). Gardening interventions for the elderly should use within-subject designs and not online surveys to avoid research bias. In addition, future research should compare two surveys obtained in one year and not consider the effectiveness of gardening activities with other outdoor activities (Sia et al., 2022).

Future research that will carry out interventions using the Qigong method specifically to improve individual sleep quality should use a larger sample (>66 participants), not using self-report to measure sleep quality but using polysomnography, increasing the duration of the study (>12 weeks), using a blind design to avoid research bias, and considering various factors that might influence individual sleep quality, such as medication use and the individual's physical condition (Phansuea et al., 2020). If the SoBeezy program is to be carried out in future research, it should conduct experiments related to social activities, seek more detailed participant data, and assess perceptions of loneliness in participants who participate in the study (Pech et al., 2022). The Caring for Carers (C4C) program in the future is expected to refine the writing protocol that has been made by adding openness of choice to the participant's emotion type at various levels in the screening section to reduce the floor or ceiling effect on results that might explain the lack of observed changes (Jones et al., 2022). Research that will use the BAILAMOS program to determine global physical activity and cognitive function in participants should design research for a more extended period (> 4 months), taking into account factors mentioned in previous relevant research, incorporating criteria for participant engagement in physical activity and dance experiences, measuring the intensity of physical activity, and striving to enhance participant commitment to program implementation (Balbim et al., 2022).

Conclusion

Based on the literature review that has been conducted, it can be seen that several forms of psychosocial interventions are effective in being given to the elderly as a treatment or prevention of crisis or psychological problems. Some effective psychosocial interventions can be in the form of social dance exercises, assistive technology applications, WE-RISE, gardening, Qigong, Collaborative Care Psychosocial, SoBeezy, Caring for Carers (C4C), and BAILAMOS. The limitations and suggestions of previous research can serve as recommendations for future research.

Recommendations

A review of the literature shows various types of psychosocial-based crisis interventions in the elderly. For caregivers and the elderly, they can implement existing programs to prevent or reduce psychological problems that occur. However, the effectiveness of these programs is often hampered by limitations such as small sample sizes or short study duration. Therefore, future research should

consider a more comprehensive study design, involve more participants, and evaluate the long-term impact of the intervention to provide more in-depth and reliable results. Future research could also use meta-analysis methodology to see how effective psychosocial-based programs are in overcoming crisis in the elderly.

Declaration

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References

Balbim, G. M., Aguinaga, S., Ajilore, O. A., Bustamante, E. E., Erickson, K. I., Lamar, M., & Marquez, D. X. (2022). The effects of the BAILAMOS dance program on physical activity levels and cognition of older Latino adults: A pilot study. *Journal of Aging and Health*, *34*(1), 25–40. https://doi.org/10.1177/08982643211020996

BPS. (2022). Statistik penduduk lanjut usia 2022 [Elderly population statistics 2022]. In *Badan pusat statistik*. https://www.bps.go.id/id/publication/2022/12/27/3752f1d1d9b41aa69be4c65c/statistik-penduduk-lanjut-usia-2022.html

Cai, H., Jin, Y., Liu, R., Zhang, Q., Su, Z., Ungvari, G. S., Tang, Y.-L., Ng, C. H., Li, X.-H., & Xiang, Y.-T. (2023). Global prevalence of depression in older adults: A systematic review and meta-analysis of epidemiological surveys. *Asian Journal of Psychiatry*, *80*, 103417. https://doi.org/10.1016/j.ajp.2022.103417

Destriande, I. M., Faridah, I., Oktania, K., & Rahman, S. (2021). Faktor yang mempengaruhi kualitas hidup pada lanjut usia [Factors that influence the quality of life in the elderly]. *PSIKOWIPA (Psikologi Wijaya Putra)*, *2*(1), 1–9. https://doi.org/10.38156/psikowipa.v2i1.41

Fahrudiana, F., & Kusbaryanto. (2019). Berbagai intervensi yang dapat mengurangi kesepian pada lansia [Various interventions that can reduce loneliness in the elderly]. *Kes Mas: Jurnal Fakultas Kesehatan Masyarakat*, *13*(2), 76–83. https://doi.org/http://dx.doi.org/10.12928/kesmas.v13i2.13997

Hummel, J., Weisbrod, C., Boesch, L., Himpler, K., Hauer, K., Hautzinger, M., Gaebel, A., Zieschang, T., Fickelscherer, A., Diener, S., Dutzi, I., Krumm, B., Oster, P., & Kopf, D. (2017). AIDEAcute illness and depression in elderly patients. Cognitive behavioral group psychotherapy in geriatric patients with comorbid depression: A randomized, controlled trial. *Journal of the American Medical Directors Association*, *18*(4), 341–349. https://doi.org/10.1016/j.jamda.2016.10.009

Janiri, D., Tosato, M., Simonetti, A., Montanari, S., Terenzi, B., Catinari, A., De Mori, L., Ferrajoli, G. F., Kotzalidis, G. D., Landi, F., Bernabei, R., & Sani, G. (2022). Post-COVID-19 psychiatric symptoms in the elderly: The role of gender and resilience. *Journal of Personalized Medicine*, *12*(12), 2016. https://doi.org/10.3390/jpm12122016

Jones, C. J., Hazell, C. M., Hayward, M., Pandey, A., Papamichail, A., Bremner, S. A., O'Connor, D. B., Pinfold, V., & Smith, H. E. (2022). Caring for Carers (C4C): Results from a feasibility randomised controlled trial of positive written disclosure for older adult carers of people with psychosis (J. Males, Ed.). *PLOS ONE*, *17*(11), e0277196. https://doi.org/10.1371/journal.pone.0277196

Kanel, K. (2010). *A guide to crisis intervention*. Linda Schreiber-Ganster.

Kim, H.-H., & Jung, N.-H. (2023). Effects of assistive technology application in dementia intervention for people with mild cognitive impairment & mild Alzheimer type dementia and caregiver. *Alternative therapies in health and medicine*, *29*(2), 104–111. http://www.ncbi.nlm.nih.gov/pubmed/35751894

Kirvalidze, M., Abbadi, A., Dahlberg, L., Sacco, L. B., Morin, L., & Calderon-Larranaga, A. (2023). Effectiveness of interventions designed to mitigate the negative health outcomes of informal caregiving to older adults: an umbrella review of systematic reviews and meta-analyses. *BMJ Open*, *13*(4), e068646. https://doi.org/10.1136/bmjopen-2022-068646

Murukesu, R. R., Singh, D. K. A., Shahar, S., & Subramaniam, P. (2021). Physical activity patterns, psychosocial well-being and coping strategies among older persons with cognitive frailty of the "We-Rise" trial throughout the COVID-19 movement control order. *Clinical Interventions in Aging*, *16*, 415–429. https://doi.org/10.2147/CIA.S290851

Pech, M., Gbessemehlan, A., Dupuy, L., Sauzeon, H., Lafitte, S., Bachelet, P., Amieva, H., & Peres, K. (2022). Lessons learned from the SoBeezy program for older adults during the COVID-19 pandemic: Experimentation and evaluation. *JMIR Formative Research*, *6*(11), e39185. https://doi.org/10.2196/39185

Phansuea, P., Tangwongchai, S., Rattananupong, T., Lohsoonthorn, V., & Lertmaharit, S. (2020). Effectiveness of a Qigong program on sleep quality among community-dwelling older adults with mild to moderate depression. *Journal of Health Research*, *34*(4), 305–315. https://doi.org/10.1108/JHR-04-2019-0091

Raihana, P. A., Indahsari, M., & Salsabilla, S. (2021). Meningkatkan kesehatan mental dan fisik pada lansia [Improving mental and physical health in the elderly]. *Abdi Psikonomi*, 160–169. https://doi.org/10.23917/psikonomi.v2i3.364

Sampoon, K., Posri, N., & Kittichotpanich, B. (2019). Application of social dance exercise and social support program to improve quality of life for Thai older adults. *Journal of Health Research*, *33*(3), 260–266. https://doi.org/10.1108/JHR-08-2018-0071

Scazufca, M., Nakamura, C. A., Peters, T. J., Henrique, M. G., Seabra, A., La Rotta, E. G., Franzin, R. M., Martins, D. F., Van de Ven, P., Hollingworth, W., & Araya, R. (2020). A collaborative care psychosocial intervention to improve late life depression in socioeconomically deprived areas of Guarulhos, Brazil: The PROACTIVE cluster randomised controlled trial protocol. *Trials*, *21*(1), 914. https://doi.org/10.1186/s13063-020-04826-w

Sia, A., Tan, P. Y., Wong, J. C. M., Araib, S., Ang, W. F., & Er, K. B. H. (2022). The impact of gardening on mental resilience in times of stress: A case study during the COVID-19 pandemic in Singapore. *Urban Forestry & Urban Greening*, *68*, 127448. https://doi.org/10.1016/j.ufug.2021.127448

WHO. (2017). *Mental health of older adults* (tech. rep.). Retrieved September 7, 2023, from https://www.who.int/news-room/fact-%20sheets/detail/mental-health-of-older-adults

Zeppegno, P., Gattoni, E., Mastrangelo, M., Gramaglia, C., & Sarchiapone, M. (2019). Psychosocial suicide prevention interventions in the elderly: A mini-review of the literature. *Frontiers in Psychology*, *9*. https://doi.org/10.3389/fpsyg.2018.02713