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Determinants of Elderly Well-Being in Europe and Asia: A Multidimensional Review

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Abstract: The accelerating pace of population aging in Europe and Asia presents complex challenges for public health, social systems, and policy frameworks. This review synthesizes empirical evidence from diverse methodological approaches—including longitudinal, cross-sectional, and meta-analytic studies—to explore the interrelated dimensions of elderly well-being. Key focus areas include mental health, physical activity, cognitive engagement, social support, and sleep quality. Findings highlight the multifactorial nature of aging, where emotional resilience, familial and community ties, creative participation, and structured physical and cognitive activity serve as buffers against cognitive decline, depression, and social isolation. Cultural variations, gender differences, and the impact of COVID-19 are critically examined. The paper advocates for integrative, culturally contextualized, and evidence-based interventions that holistically address the psychosocial and physical needs of older adults, promoting active, meaningful aging across diverse populations.

Keywords: *Elderly Well-Being, Cognitive Decline, Creative Engagement, Sleep Quality, Loneliness, Depression.*

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I. INTRODUCTION

The aging population in Europe and Asia is poised to become a significant demographic challenge. Projections indicate that in the next 20 years, a large segment of the population will be aged 65 and above, with average ages nearing 50. In India, the 2011 Census reported 53 million females and 51 million males aged 60 years or above. These demographic shifts, driven by modernization and urbanization, exert increasing pressure on healthcare, pensions, and social security systems. Neglecting fundamental needs—social relationships, personal care, nutrition, and housing—adversely affects health outcomes and life satisfaction among the elderly.

II. MENTAL HEALTH AND PSYCHOSOCIAL WELL-BEING

➢ *Loneliness, Depression, and Sociability*

The psychological landscape of aging is deeply influenced by shifts in social networks, retirement, bereavement, and declining physical health—all of which contribute to mental health vulnerabilities. Singh and Mishra (2009) established foundational correlations among loneliness, depression, and sociability, noting that while sociability inversely correlated with loneliness, it had no significant link to depression. Gendered differences in coping emerged, with males scoring higher on sociability indices.

Building further, Lim et al. (2022) emphasize that social isolation and loneliness considerably increase the chances of developing depression in the elderly. Older women living independently are particularly at risk for a range of mental and physical health difficulties. This study examines how perceived physical well-being, psychological strength, and the availability of social support influence the link between loneliness and depressive symptoms among this demographic in South Korea. The study surveyed N=308 women aged 60 and older from a moderately sized South Korean city, using standardized questionnaires collected from November 2015 to April 2016, a study was carried out using a parallel mediation analysis to examine how the three variables served as mediating mechanisms in the relationship between loneliness and depression. The analysis showed that loneliness affected depression both directly and indirectly through its impact on health perception, resilience, and social support. The research underscores the importance of implementing community-level programs aimed at enhancing both the physical and mental health of older individuals, as a means to combat loneliness and lessen the risk of depression. Additionally, Sutin et al. (2020), drawing on long-term data from the U.S. Health and Retirement Study (HRS), found that having a strong sense of purpose in life helped to protect against the depressive impact of loneliness.

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- *Physical Activity and Mental Health During and After COVID-19*

The COVID-19 pandemic profoundly disrupted older adults' physical and mental health routines, limiting mobility, access to social spaces, and structured activities**.** Creese et al., (2021) revealed that decreased physical activity during the pandemic significantly heightened risks for depression and anxiety.

Recent post-pandemic findings underscore the enduring mental health impact. Kang, & Ihara, (2025) evaluated the association between perceived age discrimination and depression among older adults in South Korea, focusing on whether regular exercise could moderate this relationship. Amid a rise in ageism during and after the COVID-19 pandemic, older individuals often internalize negative stereotypes, leading to reduced self-efficacy and increased emotional distress, which adversely affects their health. Although regular exercise is known to boost self-esteem and promote positive perceptions of aging, its potential to buffer the psychological impact of age discrimination remains underexplored.

Neurobiological evidence supports these trends. Physical activity elevates levels of brain-derived neurotrophic factor (BDNF), a key modulator of neuroplasticity and mood regulation. Erickson et al. (2011) conducted MRI-based This study examined the link between aerobic fitness, hippocampal volume, and spatial memory in 165 nondemented older adults. Results showed that higher fitness levels were associated with larger hippocampal volumes and better spatial memory performance. Additionally, hippocampal volume partially mediated the relationship between fitness and memory, suggesting that aerobic fitness may help preserve brain structure and cognitive function in aging.

III. HAPPINESS AND COGNITIVE FUNCTIONING

➢ *Cognitive Decline and Family Support*

Cognitive decline in older adults is a growing public health concern in both Europe and Asia. While age-related cognitive impairments—ranging from mild cognitive impairment (MCI) to dementia—are common, family support has consistently emerged as a critical factor in buffering its psychological and functional consequences.

Cooper et al. (2011) reported that subjective well-being remained relatively high among cognitively impaired individuals who received consistent familial support, suggesting that emotional and instrumental caregiving not only mitigates the distress of cognitive decline but also sustains life satisfaction. Building upon this framework, several recent studies underscore the significance of family involvement in maintaining cognitive health and emotional stability among older adults.

Schulz and Eden (2016), in a comprehensive U.S. National Academies report, emphasized that emotional caregiving can significantly delay institutionalization and cognitive deterioration, particularly when combined with mentally stimulating family activities like storytelling, puzzles, and religious rituals.

Cousins et al. (2023) conducted a study examining the impact of positive caregiving experiences on the relationship between dementia-related cognitive decline and caregiver stress. Drawing on data from 724 caregiver–patient pairs at a memory clinic, the researchers observed that as patients' cognitive functions deteriorated, the level of stress reported by caregivers increased. However, those caregivers who perceived their role more positively—experiencing a sense of value or appreciation—reported lower levels of burden. The analysis showed that these positive caregiving perspectives partially buffered the stress caused by cognitive decline, explaining 14.4% of the variation in caregiver burden. The findings highlight the potential of enhancing positive aspects of caregiving to reduce emotional strain among those caring for individuals with dementia.

Research has shown that as individuals with dementia experience greater cognitive decline, their caregivers often face increased burden. However, when caregivers perceive positive aspects in their role, outcomes tend to improve. This study explored how cognitive decline in people with dementia relates to caregiver burden, and whether recognizing positive aspects of caregiving can buffer this effect. The findings suggest that a decline in cognitive function may lead to higher caregiver burden, especially when positive caregiving experiences are lacking. Importantly, the study highlights the potential of positive caregiving perceptions to indirectly reduce the negative impact of dementia-related decline on caregivers**.**

Finally, Wang et al. (2015) examined how family functioning relates to cognitive impairment in a sample of 699 Chinese adults aged 90 to 108, using data from the 2005 Project of Longevity and Aging in Dujiangyan. Participants' cognitive abilities were measured using the Mini-Mental State Examination (MMSE), with findings revealing that 62.8% of them exhibited signs of cognitive decline. Family dysfunction was prevalent, affecting 52.2% of the sample, with 8.6% experiencing severe dysfunction and 43.6% moderate. Analysis showed that individuals from families with poorer functioning had lower MMSE scores and were more likely to be cognitively impaired. A significant correlation was observed between better family functioning and higher cognitive scores. Importantly, even after accounting for variables such as age, lifestyle, and health conditions, severe family dysfunction continued to be linked to an elevated risk of cognitive impairment. These results underscore the critical role of a supportive family environment in maintaining cognitive well-being in the oldest-old population.

➢ *Creative Engagement: Piano Art and Emotional Wellbeing*

Creative engagement has gained traction as a non-pharmacological intervention to improve emotional well-being, reduce cognitive decline, and enhance life satisfaction in aging populations. These activities stimulate multiple brain

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areas, promote self-expression, and foster social connectedness—all of which contribute positively to mental health in later life.

In their 2021 study, Chen, Huang, and Wang investigated the psychological impact of piano education in older adults. Using psychometric tools and the Memorial of New-Found Happiness Scale, they found that piano engagement was positively associated with increased emotional positivity, reduced depressive symptoms, and enhanced daily satisfaction. Building on this, additional research across regions highlights similar benefits of creative engagement in promoting psychological well-being in late life. For example, Creech et al. (2013), in a UK-based longitudinal study, found that older adults participating in community music-making reported improved self-esteem, stronger social bonds, and reduced loneliness, describing music as both "emotionally liberating" and "identity-affirming." Noice and Noice (2009) demonstrated that involvement in theater training led to improvements in episodic memory, word recall, and problem-solving, highlighting how performance-based arts stimulate both cognitive and emotional faculties.

Other creative forms also show remarkable therapeutic value. A study (Chan et. al, 2018) found that participating in an eight-week Chinese calligraphy course led to significant improvements in working memory and delayed recall among older adults experiencing mild cognitive impairment. Additionally, participants showed moderate gains in attention control, visual scanning abilities, and processing speed. Although these early results are promising, further research is necessary to evaluate the long-term effectiveness of this intervention. Given its cultural relevance and cognitive benefits, Chinese calligraphy training holds potential for integration into routine care services for the elderly in Hong Kong.

Li et al. (2022) explored the use of Chinese calligraphy and painting in elder care homes in Beijing, reporting significantly reduced anxiety and enhanced calmness, especially among those with mild cognitive impairment. Cohen et al. (2006), through the Creativity and Aging Study, found that seniors involved in structured creative arts programs had fewer medical visits, lower medication use, and better overall morale.

In Ho et al., (2020) found that dance movement therapy significantly enhanced attention, emotional regulation, and communication in elders with mild dementia. These findings align with the neuroplasticity model of aging, which posits that emotionally rich, novel experiences can preserve or even enhance brain function.

As such, many elder care programs across Europe and Asia are now embracing arts-based interventions not merely as recreational activities, but as vital therapeutic tools that restore a sense of purpose, agency, and community connection among older adults.

IV. SOCIAL PARTICIPATION AND LIFE SATISFACTION

Antonucci et al. (2014) proposed the Convoy Model of Social Relations, illustrating how supportive relationships—such as those with family, friends, and neighbors—evolve over the lifespan. This model emphasizes that the quality of close, emotionally positive relationships is more protective of well-being than the sheer number of social contacts. In line with this, Park (2019) found that among South Korean elders, perceived intergenerational support, especially from children and grandchildren, was a stronger predictor of happiness than financial resources. Factors such as emotional reciprocity, social respect, and the preservation of cultural traditions like shared rituals contributed significantly to a sense of belonging and psychological stability.

Recent research also highlights the expanding role of digital platforms and sociocultural variables in shaping late-life social participation. Wrzus et al. (2021) observed that digitally connected older adults—those who used smartphones or participated in online social networks—reported higher life satisfaction and reduced loneliness, particularly during periods of physical isolation like the COVID-19 pandemic. Akhavan Rad et al. (2023) explored Iranian elders' participation across gender, education, and marital lines. Their findings revealed that women were more inclined toward emotionally nurturing relationships and informal caregiving, whereas men favored structured community engagement. Collectively, these studies underscore that meaningful social integration serves as a critical pillar for emotional resilience, identity reinforcement, and life satisfaction in older adulthood.

V. SLEEP QUALITY AND LONELINESS

Sleep quality is a cornerstone of holistic well-being in older adults, intricately linked to physical health, cognitive performance, and emotional resilience. A comprehensive meta-analysis by Hom et al. (2020), which reviewed data from 227,112 participants across 84 studies, identified a moderate-to-strong correlation between loneliness and various sleep disturbances, including insomnia, nightmares, and reduced sleep efficiency.

Recent research continues to shed light on this dynamic. For example, the study *"Structural Brain Correlates of Loneliness among Older Adults"* by Düzel et al. (2019) examines how loneliness relates to brain structure in older adults. Using MRI data from participants in the Berlin Aging Study II, the researchers found that higher levels of loneliness were associated with reduced gray matter volume in key brain regions involved in emotion processing and regulation—specifically, the left amygdala/anterior hippocampus, left posterior parahippocampus, and left cerebellum. These associations remained significant even after controlling for social network size, suggesting that loneliness itself—beyond merely a lack of social contact—has a distinct neurobiological signature. The findings underscore the importance of addressing loneliness to support brain health in aging populations..

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A study by Peng et al. (2024) Social support was shown to reduce both sleep disturbance and loneliness in both groups, with a stronger negative effect for MOA. Sleep disturbance, in turn, was positively associated with loneliness, with a higher impact for LOA**.** Gender differences in sleep quality also remain a salient issue. Studies have consistently shown that older women report poorer sleep quality than men, experiencing more frequent nocturnal awakenings, lighter sleep, and higher rates of insomnia. For instance, a 10-year Finnish study found that age, more than menopause, influenced sleep changes in women, with deep sleep increasing and stage 2 sleep decreasing over time. Menopausal hormone shifts slightly affected sleep onset, but overall sleep quality decline was not directly linked to menopause Kalleinen et al., (2020).

Jonasdottir, Minor, and Lehmann (2021) found that psychosocial stressors—such as caregiving roles and widowhood—further exacerbate sleep disturbances in older women. This global study used wearable device data from hundreds of thousands of adults to explore how nighttime sleep patterns vary by gender and age. It found that women generally sleep longer and better than men, though they often report more sleep issues in surveys. Sleep duration and quality decline with age for both sexes, but more sharply in men, who also show greater variability. These patterns were consistent across countries, suggesting biological and environmental influences. The research highlights the usefulness of wearable tech in understanding real-world sleep behavior and stresses the need to consider both gender and age in sleep health strategies

Moreover, older men and women differ in their health-seeking behaviors concerning sleep issues. Men, adhering to traditional gender norms that valorize stoicism and toughness, may underreport symptoms and avoid seeking medical help, thereby delaying intervention. In contrast, women are more likely to acknowledge and address their sleep problems, often engaging with sleep clinics and behavioral therapies.

Adding to this gendered dimension, a recent longitudinal study by Luca et al. (2022) explored how sleep patterns vary with age and gender by analyzing both self-reported data (from 5,064 participants) and objective sleep measurements via polysomnography (in 2,160 participants), focusing exclusively on adults aged 40 to 80 without diagnosed sleep disorders. The findings revealed that as people age, they tend to prefer earlier bedtimes and experience less daytime sleepiness, particularly among women. Older individuals also rated their sleep quality and daytime performance more positively. However, women showed an age-related increase in the time it took to fall asleep, and both men and women experienced a decline in sleep efficiency with age. Deep, restorative slow-wave sleep decreased notably in men as they aged. Brainwave analysis during non-REM sleep showed a reduction in slow-wave and sleep spindle activity, while theta-alpha and beta frequency activity increased. During REM sleep, aging was linked to a drop in delta wave activity and a rise in higher-frequency brainwaves. Overall, the study reveals intricate changes in both subjective experiences and physiological aspects of sleep across age and gender.

In sum, sleep disturbances among older adults are multidimensional, influenced by loneliness, gender norms, biological changes, and environmental context. Addressing these complexities requires integrated interventions—combining cognitive behavioral therapy, community-based social engagement programs, and personalized sleep hygiene education—to break the vicious cycle of loneliness and poor sleep, ultimately enhancing the quality of life in aging populations (sammary of research studies, Table-1).

Table 1 Research Studies

Section	Author(s)	Sample / Population	Method / Study Type	Key Findings
Loneliness, Depression, Sociability	Singh & Mishra (2009)	N=55 (Male 35, Female 20) Indian older adults (60-80 years)	Correlational study	Positive correlation exits between with loneliness and depression. Sociability negatively correlates with loneliness; males show higher sociability.
	Lim et al. (2022)	N = (308) South Korea	Parallel Mediation Analysis	Findings showed that loneliness directly and indirectly impacts depression through these factors, highlighting the need for community programs to improve elderly well-being and reduce depression risk.
	Sutin et al. (2020)	(N = 12,030) U.S. HRS data	Longitudinal study	Purpose in life buffers loneliness-depression link.
Physical Activity & COVID-19	Creese et al. (2021)	Older adults	Longitudinal study	Physical inactivity increases depression and anxiety.
	Kang, & Ihara, (2025)	N = 9,920 Older South Koreans	Intervention study	Regular exercise is known to boost self-esteem and promote positive perceptions of aging.
	Erickson et al. (2011)	165 Older adults	MRI-based study	Aerobic exercise increases hippocampal volume; reduces anxiety.
Cognitive Decline &	Cooper et al. (2011)	Older adults with cognitive impairments	Observational study	Family support sustains well-being despite cognitive decline.

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Family Support	Schulz & Eden (2016)	U.S. older adults	National Academies report	Emotional caregiving delays institutionalization and decline.
	Cousins, -et al. (2023)	1013 elders	Longitudinal study	Positive caregiving slows cognitive decline.
	Wang et al. (2015)	699 Chinese adults aged 90 to 108,	using the Mini-Mental State Examination (MMSE),	A significant correlation was observed between better family functioning and higher cognitive scores.
Creative Engagement	Chen, Huang & Wang (2021)	Older adults	Piano art study	Piano boosts happiness and reduces depression.
	Creech et al. (2013)	UK music participants	Longitudinal study	Music-making improves self-esteem and reduces loneliness.
	Noice & Noice (2009)	Older theater participants	Experimental study	Theatre enhances memory, recall, and problem-solving.
	Chan et., al (2018)	99 elders	Experimental study	Calligraphy reduces significant improvements in working memory and delayed recall among older adults experiencing mild cognitive impairment.
	Cohen et al., (2006)	U.S. seniors	Creativity and Aging Study	Art lowers medication use and boosts morale.
	Ho et al. (2020)	Hong Kong elders dementia	Dance therapy study	Dance improves emotional regulation and attention.
Social Participation	Antonucci et al. (2014)	Lifespan developmental sample	Convoy Model theory	Emotional closeness matters more than number of contacts.
	Park (2012)	South Korean elders	Correlational study	Intergenerational support predicts happiness over income.
	Wrzus et al. (2021)	24-Digitally active elders	COVID-related study	Digital use reduces loneliness and increases life satisfaction.
	Akhavan Rad et al. (2023)	Iranian elders	Sociocultural analysis	Gender roles shape social participation patterns.
Sleep Quality & Loneliness	Hom et al. (2020)	Meta-analysis (84 studies, 227,112 participants)	Meta-analysis	Strong link between loneliness and poor sleep.
	Düzel et al., (2019)	319 Older adults	Neuroendocrine research	loneliness in older adults is linked to structural differences in brain regions critical for emotional processing and regulation..
	Pang et al., (2024)	1205 participants (613 MOA and 592 LOA)	Cross-national study	Social support was shown to reduce both sleep disturbance and loneliness in both groups, with a stronger negative effect for MOA. Sleep disturbance, in turn, was positively associated with loneliness, with a higher impact for LOA.
	Kalleinen et al., (2020)	Older women	Sleep architecture review	Menopausal hormone shifts slightly affected sleep onset, but overall sleep quality decline was not directly linked to menopause.
	Jonasdottir, Minor & Lehmann (2021)	Older women	Stress and sleep study	.It found that women generally sleep longer and better than men, though they often report more sleep issues in surveys. Sleep duration and quality decline with age for both sexes, but more sharply in men, who also show greater variability
	Luca et al. (2022)	Swiss older adults	Gendered intervention study	study reveals intricate changes in both subjective experiences and physiological aspects of sleep across age and gender

VI. DISCUSSION

The findings presented in this paper underscore the complex interplay between physical health, mental well-being, social support, and cognitive functioning among aging populations in Europe and Asia. While these regions share certain commonalities—such as increasing life expectancy and the pressure on healthcare systems—there are also

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significant cultural and societal differences that shape the experiences and outcomes of aging. The discussion that follows explores the implications of these findings for both theory and practice, highlighting critical areas that need further attention and providing recommendations for improving the quality of life for older adults.

➢ *The Role of Social Connections in Mental Health*

A prominent theme in the literature reviewed is the critical role of social relationships in mitigating mental health challenges such as loneliness and depression. In line with the Convoy Model of Social Relations (Antonucci et al., 2014), the evidence suggests that the quality of close, supportive relationships is more important than the quantity of social contacts. This discovery is especially pertinent in light of the COVID-19 epidemic, which has disrupted social networks and physical connections.

As Wrzus et al. (2021) found, digitally connected older adults reported better life satisfaction, suggesting that digital platforms can serve as vital tools for maintaining social participation, especially during times of physical isolation.

The findings from Lim et al. (2022) and Sutin et al. (2020) indicate that loneliness significantly increases the risk of depression, regardless of cultural background. However, the severity of loneliness and its effects on mental health appear to vary across countries, with family structures playing a crucial role. In collectivist societies such as those in Japan and South Korea, co-residence with family does not always guarantee emotional support, highlighting the importance of quality over quantity in familial relationships. This suggests that interventions focused on fostering emotional closeness, rather than simply increasing family presence, may be more effective in reducing loneliness and improving mental health.

➢ *Physical Activity as a Buffer Against Depression*

The connection between physical activity and mental health is well-documented in the literature. Kang, & Ihara, (2025) demonstrated that resuming physical activity post-pandemic can significantly reduce the risk of developing depression. This is particularly relevant given the global trend toward sedentary lifestyles, which can contribute to both physical and mental health declines in older adults.

The neurobiological evidence linking physical activity to brain-derived neurotrophic factor (BDNF) levels and improved hippocampal volume, as shown by Erickson et.al., (2011) further supports the notion that exercise can be an essential tool for maintaining cognitive health and emotional well-being. One of the challenges, however, lies in encouraging older adults to engage in regular physical activity. Interventions that combine exercise with social interaction—such as group walking clubs, communal gardening, or intergenerational dance programs—hold promise, particularly in cultural contexts where community values remain strong. These activities not only address physical health but also provide opportunities for emotional connection, which is crucial for mental health.

➢ *Cognitive Engagement and Family Support*

Cognitive decline is a major concern in aging populations, especially as diseases like Alzheimer's and dementia become more prevalent. The role of family support in mitigating cognitive decline is underscored by several studies, including those by Cooper et al. (2011) Consistent family involvement, particularly in the form of caregiving and mental stimulation, has been shown to buffer against the negative effects of cognitive decline. This is especially important in cultures where multigenerational households are common, and familial bonds are tightly knit.

Cousins et al. (2023) explored how positive aspects of caregiving affect the relationship between cognitive decline in dementia patients and caregiver burden. Using data from 724 caregiver–patient pairs, the study found that greater cognitive decline led to increased caregiver stress. However, caregivers who reported positive experiences—such as finding meaning or satisfaction in their role—experienced less burden. The results suggest that promoting positive caregiving perspectives can help buffer the emotional impact of dementia caregiving.

➢ *Creative Engagement and Emotional Well-being*

Creative engagement, including activities like music, art, and writing, has emerged as a powerful non-pharmacological intervention to enhance emotional well-being and cognitive function in older adults. As shown in studies by Chen et al. (2021) and Creech et al. (2013), creative activities provide opportunities for self-expression, social connection, and emotional catharsis, all of which contribute to mental health in later life. These activities have also been linked to neuroplasticity, suggesting that they can stimulate cognitive functions and potentially slow down cognitive decline.

Creative engagement can be particularly effective in institutional settings, such as nursing homes, where the elderly often experience isolation and a loss of purpose. Programs that involve group music-making, theater, or art can foster a sense of community and belonging, counteracting feelings of loneliness and depression. Moreover, creative activities that engage multiple senses—such as dance or calligraphy—can enhance physical and emotional coordination, which is important for holistic well-being in aging populations.

➢ *Sleep Quality and Loneliness: A Cyclical Relationship*

The relationship between sleep quality and loneliness is another critical issue that emerged in the discussion. Studies like those by Hom et al. (2020) and Pang et al. (2024) This study investigates the differences between migrant older adults (MOA) and local older adults (LOA) in China regarding the relationship between social support, sleep disturbance, and loneliness. Conducted in Weifang City with 1205 participants (613 MOA and 592 LOA), the study found that both groups experience loneliness, but MOA report higher levels. Social support was shown to reduce both sleep disturbance and loneliness in both groups, with a stronger negative effect for MOA. Sleep disturbance, in turn, was positively associated with loneliness, with a higher impact for

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LOA. The findings suggest that enhancing social support and addressing sleep disturbance could help alleviate loneliness, particularly among MOA, and highlight the need for targeted interventions from government, society, and families.

Additionally, the gendered dimension of sleep disturbances in older adults—particularly among women—requires targeted approaches that account for hormonal changes and caregiving stress. Tailored interventions that address the unique needs of older women may be more effective in improving sleep quality and overall well-being.

VII. CONCLUSION AND FUTURE DIRECTIONS

In summary, the mental, physical, and emotional well-being of older adults is influenced by a multitude of factors, including social relationships, physical activity, cognitive engagement, and sleep quality. The findings from this paper highlight the importance of addressing these factors in an integrated, culturally sensitive manner, taking into account the unique needs and challenges faced by aging populations in Europe and Asia. Future research should focus on developing and testing interventions that simultaneously address multiple aspects of aging, such as combining physical activity with social engagement or using creative activities to promote both emotional well-being and cognitive health.

Moreover, policymakers should prioritize the creation of supportive environments that encourage social participation, physical activity, and mental engagement, particularly in the wake of the COVID-19 pandemic. By fostering environments that promote social connection, active aging, and emotional resilience, we can improve the quality of life for older adults across the globe.

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REFERENCES

[1]. Akhavan Rad, M., Soleimani, R., & Etemadifar, S. (2023). The influence of gender, education, and marital status on social participation among Iranian older adults. *Journal of Cross-Cultural Gerontology, 38*(1), 1–18.

[2]. Antonucci, T. C., Ajrouch, K. J., & Birditt, K. S. (2014). The Convoy Model: Explaining social relations from a multidisciplinary perspective. *The Gerontologist, 54*(1), 82–92.

[3]. Chan, C. C. H., Derbie, A. Y., Hui, I., Pang, M. Y. C., Fong, K. N. K., & Chan, S. C. C. (2018). Chinese calligraphic writing to enhance cognitive performance and emotional calmness in older adults with mild cognitive impairment. *Hong Kong Medical Journal, 24*(Suppl 2), S4–S7.

[4]. Chen, X., Huang, F., & Wang, Y. (2021). The integration and development of piano art and media education and its influence on the long-term care and happiness of the elderly people. *Frontiers in Psychology, 12*, 593835.

[5]. Cohen, G. (2006). Research on creativity and aging: The positive impact of the arts on health and illness. *Generations, 30*(1), 7–15.

[6]. Cooper, C., Bebbington, P., & Livingston, G. (2011). Cognitive impairment and happiness in old people in low and middle income countries: Results from the 10/66 study. *Journal of Affective Disorders, 130*(1–2), 198–204.

[7]. Cousins, E., Patrick, K., Chapman, K., Drost, J., & Spitznagel, M. B. (2023). The indirect effect of positive aspects of caregiving on the relationship between cognitive decline and dementia caregiver burden. *Psychogeriatrics, 23*(4), 603–608.

[8]. Creech, A., Hallam, S., Varvarigou, M., & McQueen, H. (2013). Active music making: A route to enhanced subjective well-being among older people. *Perspectives in Public Health, 133*(1), 36–43.

[9]. Creese, B., Khan, Z., Henley, W., O'Dwyer, S., Corbett, A., Da Silva, M. V., ... & Ballard, C. (2020). Loneliness, physical activity and mental health during COVID-19: A longitudinal analysis of depression and anxiety between 2015 and 2020. *Aging and Health, 33*(9), 663–681.

[10]. Creese, B., Khan, Z., Henley, W., O'Dwyer, S., Corbett, A., Da Silva, M. V., ... & Ballard, C. (2021). Loneliness, physical activity, and mental health during COVID-19: A longitudinal analysis of depression and anxiety in adults over the age of 50 between 2015 and 2020. *International Psychogeriatrics, 33*(5), 505–514.

[11]. Düzel, S., Drewelies, J., Gerstorf, D., Demuth, I., Steinhagen-Thiessen, E., Lindenberger, U., & Kühn, S. (2019). Structural brain correlates of loneliness among older adults. *Scientific Reports, 9*, 13569.

[12]. Erickson, K. I., Prakash, R. S., Voss, M. W., Chaddock, L., Hu, L., Morris, K. S., ... & Kramer, A. F. (2009). Aerobic fitness is associated with hippocampal volume in elderly humans. *Hippocampus, 19*(10), 1030–1039.

[13]. Ho, R. T., Fong, T. C., Chan, W. C., Kwan, J. S., Chiu, P. K., Yau, J. C., & Lam, L. C. (2020). Psychophysiological effects of dance movement therapy and physical exercise on older adults with mild dementia: A randomized controlled trial. *The Journals of Gerontology: Series B, 75*(3), 560–570.

[14]. Hom, M. A., Chu, C., Rogers, M. L., & Joiner, T. E. (2020). A meta-analysis of the association between loneliness and sleep problems in older adults. *Sleep Health, 6*(2), 203–212.

[15]. Jonasdottir, S. S., Minor, K., & Lehmann, S. (2021). Gender differences in nighttime sleep patterns and variability across the adult lifespan: A global-scale wearables study. *Sleep, 44*(2), zsaa169.

[16]. Kalleinen, N., Aittokallio, J., Lampio, L., Kaisti, M., Polo-Kantola, P., Polo, O., ... & Saaresranta, T. (2021). Sleep during menopausal transition: A 10-year follow-up. *Sleep, 44*(6), zsaa283.

[17]. Kang, H., & Ihara, E. S. (2025). Age discrimination and depression among older adults in South Korea:

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25apr1737

Moderating effects of exercise. *Aging and Health Research, 5*(1), 100218.

[18]. Lim, Y. M., Baek, J., Lee, S., & Kim, J. S. (2022). Association between loneliness and depression among community-dwelling older women living alone in South Korea: The mediating effects of subjective physical health, resilience, and social support. *International Journal of Environmental Research and Public Health, 19*(15), 9246.

[19]. Luca, G., Haba-Rubio, J., Andries, D., Tobback, N., Vollenweider, P., Waeber, G., ... & Tafti, M. (2015). Age and gender variations of sleep in subjects without sleep disorders. *Annals of Medicine, 47*(6), 482–491.

[20]. Noice, T., & Noice, H. (2009). An arts intervention for older adults living in subsidized retirement homes. *Aging, Neuropsychology, and Cognition, 16*(1), 56–79.

[21]. Pang, M., Wang, J., Zhao, M., Chen, R., Liu, H., Xu, X., ... & Kong, F. (2024). The migrant-local difference in the relationship between social support, sleep disturbance, and loneliness among older adults in China: Cross-sectional study. *JMIR Public Health and Surveillance, 10*, e49253.

[22]. Park, S. (2012). *An ageing population in a family and welfare state: The dynamics of family support and public pension systems, and their impact on late-life happiness in contemporary South Korea* (Doctoral dissertation, University of Oxford, UK).

[23]. Schulz, R., Eden, J., & National Academies of Sciences, Engineering, and Medicine. (2016). *Programs and supports for family caregivers of older adults*. In *Families caring for an aging America*. National Academies Press.

[24]. Singh, A., & Misra, N. (2009). Loneliness, depression and sociability in old age. *Industrial Psychiatry Journal, 18*(1), 51–55.

[25]. Sutin, A. R., Luchetti, M., Stephan, Y., & Terracciano, A. (2020). Loneliness and risk of dementia. *The Journals of Gerontology: Series B, 75*(7), 1414–1422.

[26]. Wang, B., He, P., & Dong, B. (2015). Association between family functioning and cognitive impairment among Chinese nonagenarians/centenarians. *Geriatrics & Gerontology International, 15*(9), 1135–1142.

[27]. Wrzus, C., Hänel, M., Wagner, J., & Neyer, F. J. (2021). Digital social interaction and well-being in older adulthood: Findings from the COVID-19 context. *Computers in Human Behavior, 120*, 106759.

[28]. Kalleinen, N., Aittokallio, J., Lampio, L., Kaisti, M., Polo-Kantola, P., Polo, O., ... & Saaresranta, T. (2021). Sleep during menopausal transition: a 10-year follow-up. *Sleep*, *44*(6), zsaa283.

[29]. Ho, R. T., Fong, T. C., Chan, W. C., Kwan, J. S., Chiu, P. K., Yau, J. C., & Lam, L. C. (2020). Psychophysiological effects of dance movement therapy and physical exercise on older adults with mild dementia: a randomized controlled trial. *The Journals of Gerontology: Series B*, *75*(3), 560-570.

[30]. Kang, H., & Ihara, E. S. (2025). Age discrimination and depression among older adults in South Korea: Moderating effects of exercise. *Aging and Health Research*, *5*(1), 100218.