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Harnessing Artificial Intelligence (AI) for Psychological Assessment and Treatment in Older Adults

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ABSTRACT

This review article examines the use of artificial intelligence (AI) in psychological health and its contribution to enhancing psychological care for older adults. All over the world, where life expectancy is continually rising, older individuals face major and unique psychological issues, including anxiety, depression, and dementia. AI provides professionals with useful instruments to recognize psychological disorders at the initial stage and create an individual treatment approach. Technologies such as machine learning, natural language processing, and wearable devices can help identify early signs of psychological symptoms, facilitating more accurate diagnoses. In addition, other AI-enabled solutions, including chatbots, virtual assistants, and socially assistive robots, provide better and more timely interventions for older adults with issues including loneliness, cognitive decline, and limited mobility that would otherwise bar them from accessing conventional care. However, some problems can be associated with using artificial intelligence, such as ethical issues like privacy, fairness, and openness. Therefore, new technologies must be designed to address the needs of older adults, be user-friendly, and uphold individuals' dignity. Collaboration in this area is also important because healthcare providers, researchers, and AI developers must work together to ensure that AI technologies are developed to complement human care. Artificial intelligence has the potential to promote psychological well-being and overall life satisfaction by addressing these problems.

KEYWORDS: Older Adults; AI; Psychological Health; Wearable Devices; Machine Learning; Virtual Assistants; Social Robots

KEY PRACTITIONER MESSAGE

1. AI technologies (machine learning, natural language processing, and wearable sensors) can help to provide to older adults for early diagnosis and effective treatment for psychological disorders. Older adults with mobility impairments or those residing in distant locations may get psychological care and assistance via chatbots, virtual assistants, and socially assitive robots.
2. AI applications can raise ethical issues around data privacy, algorithmic bias, and transparency. Therefore, AI developers and implementers should be particularly careful about transparency and ensure that human dignity and autonomy are not violated.
3. Wearable devices and digital health applications can monitor immediate and long-term emotional and cognitive changes and make recommendations for efficient and immediate interventions.
4. It is important to note that the advancement and application of AI are based on integration, solutions that are sensitive to ethical considerations and cultural sensitivity as well as being in line with the needs of the individual. This can be done through the collaboration of healthcare providers, researchers, AI developers, and policymakers.

INTRODUCTION

The use of artificial intelligence (AI) in the assessment and treatment of psychological disorders for older adults represents a transformative opportunity. This review article highlights the importance of AI in psychological care for older adults, aligning with the Journal of Aging and Long-Term Care's (JALTC) objective of emphasizing the critical role of interdisciplinary approaches in enhancing the well-being of this group of people. Focusing on the potential uses of AI in the provision of all psychological services currently provided to older adults, such as assessment, inventorship, and psychotherapy, this article aims to explore how AI-enabled innovations can improve the quality of life of older adults, promote their independence, and provide solutions to their often unique and seemingly incurable mental health problems. As a result of the fact that life expectancy is consistently increasing around the world, there is an increasing need for care that is not only efficient but also easily accessible and sensitive to cultural norms among people of advanced age. Czaja and Ceruso (2022) and Fear and Gleber (2023) suggest that AI offers a promising solution for personalized and efficient care and meeting the evolving needs of older adults while addressing the rising demand for care services.

It is clear that AI has the potential to revolutionize the psychological care of older adults in the early detection and diagnosis of psychological disorders and the development of appropriate and personalized treatment strategies. Technologies such as machine learning, natural language processing, and deep learning are increasingly used to improve psychological assessments and provide ongoing support through virtual assistants and chatbots (Lee et al., 2022).

By increasing the efficiency of the psychological assessment process while at the same time enhancing the precision of diagnosis, the use of AI can assist with tackling psychological problems, including loneliness, depression, anxiety, and cognitive decline, which are prevalent in the older population. In addition, AI has the ability to fulfill the mental health needs of older persons in real-time, which is a significant advantage during the psychological health process. The provision of continuous monitoring and tailored therapy is especially beneficial for those who live alone or who have restricted access to traditional medical care.

There are, however, certain concerns that need to be taken into account when it comes to the application of AI in the treatment of older adults. Some of the challenges that are of ethical consideration, such as privacy, bias in algorithms, and respect for the autonomy of older adults, have to be addressed before the implementation of the use of AI can be expanded (Wei et al., 2023). With the fast advancement of AI

technologies, healthcare professionals, caregivers, and AI developers must work to ensure these technologies are ethical, inclusive, and pertinent to the requirements of older persons (Mhlanga, 2024). To foster trust and overcome skepticism, AI systems should prioritize transparency and accountability. This review article examines the use of AI in psychological care, its potential to enhance older adults' mental health and well-being, and the significant ethical and practical challenges that need to be addressed.

The Effects of Psychological Health on Overall Health and Quality of Life in Older Adults

The mental health of a person is of the biggest significance when it comes to the management of the physical, social, and quality of life experienced by older people. Cognitive impairment, depression, and anxiety all contribute to the worsening of physical symptoms and an increased risk of developing additional illnesses, such as cardiovascular disease, diabetes, and issues with mobility. Individuals who suffered from depression and did not receive any kind of treatment had a 40% greater probability of having cardiovascular disease after a decade, as stated by Taylor (2020). Clearly, this demonstrates how psychological disorders can have a lasting impact on individuals. In order to prevent these problems and to encourage healthy aging, there is a need for therapies that are innovative, effective, and in the early stages. The availability of these treatments should be widespread in order to reach the greatest number of individuals possible.

It has been established that psychological therapies, including Cognitive Behavioral Therapy (CBT), also have positive effects on one's mental and physical health. In a study by Li et al. (2023), the comprehensive benefits of CBT on mental and physical health were revealed after finding that it decreased the levels of depressive symptoms, diabetic self-care behaviors, and sleep quality in patients with type 2 diabetes and metabolic syndrome. In the work by Sharif and his colleagues (2014), they found that CBT helped in managing depression and enhancing the management of diabetes in patients, highlighting the importance of CBT in the treatment of chronic diseases. H. Zhang et al. (2024) identified a significant positive linear correlation between depression and physical health, particularly blood pressure, emphasizing the need to improve mental health to increase physical outcomes.

In the research by Marais et al. (2022), Mindfulness-Based Stress Reduction (MBSR) was paired with better movement and helped people with knee and hip osteoarthritis feel less pain over time. Similarly, Khoo et al. (2019) found that MBSR can help people with chronic pain improve their physical performance and lessen the severity of their pain. These studies

show that getting psychological care not only lessens the amount of mental pain, but it also helps ease the problems that come with physical health, which in the end, makes people happier with their overall lives.

Older individuals' social isolation and loneliness are connected to poor mental health and life satisfaction. Cacioppo & Cacioppo (2018) noted that loneliness worsens psychological discomfort and physical deterioration, making social connectivity essential for mental health. Holt-Lunstad et al. (2020) found that socially isolated older persons had double the risk of functional deterioration over five years. Digital platforms that encourage community involvement and social connection reduce loneliness, boosting mental health and quality of life. These results emphasize the importance of social relationships for aging adults' physical function and independence.

With the increasing use of technology across the globe and the digitization of the world, there is a growing application of AI in improving mental health assessment and treatment. By applying AI technologies such as machine learning and natural language processing it is possible to enhance the analysis of big data. The use of data and analysis in healthcare is made possible by the use of algorithms, which support the AI systems that are able to learn from the data and make inferences about it and the natural language processing that allows the robots to understand the language. This makes it possible to improve the diagnostic accuracy as well as the therapeutic interventions to be tailored to the individual. Some of the applications include the identification of cognitive decline and psychiatric disorders at an early stage thus enabling the provision of better treatments. Furthermore, non-staffing augmented reality aids, such as virtual companions and social robots are used to reduce feelings of loneliness. These technologies help to have real conversations with older adults, support the caregivers, and help older adults to get the proper care that they need while maintaining their independence. Thus, these advancements increase the well-being of older adults, which in turn increases the level of care and connection.

Despite the potential for AI to revolutionize healthcare, its use in healthcare raises numerous ethical dilemmas and violations, including data privacy, informed consent, and the risk of over-reliance on technology. As AI becomes more integrated into psychological healthcare, it is necessary to balance innovation with ethical concerns. In fact, it will be more important for AI to complement human care than for AI to replace humans in healthcare processes. Continued research should be supported to understand the long-term effects of AI on psychological care and to ensure its responsible use. In the end, the well-being of older people depends on

giving psychological health a top priority, so creative ideas like artificial intelligence may help in better aging. These technologies should be used, therefore, under ethical considerations and in a manner that improves rather than compromises the quality of life of the aging population without complicating their lives.

AI in Healthcare: Integration into Medicine, Psychology, and Care for Older Adult

As discussed above, psychological health plays a critical role in the psychological well-being of older adults because the effects of mental health on physical health and quality of life are profound, influencing not only how older adults manage day-to-day activities but also their long-term health outcomes. Building on the critical importance of psychological health and integrating AI presents a promising approach to addressing both the mental and physical health challenges faced by older adults. Moreover, AI has the potential to significantly enhance care delivery, promote healthy aging, help older adults manage their health more effectively, and transform gerontological and geriatric care in meaningful ways.

As the global population continues to age, healthcare systems worldwide are under increasing pressure. As a result, the demand for long-term care and support for older adults is growing, making it more important than ever to find innovative solutions. This is where AI comes in. With its potential to enhance the delivery of care, promote healthy aging, and reduce the burden on healthcare infrastructure, AI is increasingly being recognized as a notable change in the field of gerontological and geriatric care. For example, technologies like smart homes and remote patient monitoring are already being used to help older adults live more independently. These technologies are continuously tracking health and providing support with everyday tasks. According to the highlights of Koc (2023), medication management, monitoring potential drug interactions, and even suggesting personalized treatments are being carried out by AI. As a result, all of these advancements contribute to better care and an improved quality of life for older adults.

The detection of cognitive decline, which is a major worry as individuals age, is one area in which AI is transforming mental health treatment for older adults. It is able to discover early indicators of illnesses such as dementia and depression by analyzing data from medical records and brain scans. This allows AI to spot patterns that would otherwise be missed. As Graham, Lee, and others (2019) have pointed out, AI makes it possible to intervene sooner, which results in better treatment outcomes when compared to more conventional approaches. In the long run, this technology has the potential to improve the quality of life for older adults by providing care that is both more accurate and more timely.

Additionally, AI goes beyond just biological factors; it takes into account psychological and social variables, thereby providing a more holistic approach to mental health care, as highlighted by Renn et al. (2021). However, due to the complex nature of psychosocial factors as opposed to biological ones ethical challenges can be quite difficult for AI to navigate in this area. For instance, there are ethical challenges like making sure data privacy is upheld and tackling the ethical issues surrounding AI's involvement in mental health care. This is particularly important considering the intricate nature of diagnosing conditions that frequently intersect with normal aging, as noted by Ray et al. (2022).

In addition to mental health, a crucial role is being played by AI in managing chronic diseases that are prevalent among older adults. It is known that many older individuals live with multiple chronic conditions, such as heart disease or diabetes, which require constant monitoring. Health indicators can be tracked in real-time by AI systems, with potential issues being flagged before they become serious. Therefore, this proactive approach is considered vital, as the health of older adults can deteriorate quickly without timely intervention. As emphasized by Czaja and Ceruso (2022), AI technologies, like machine learning and deep learning, can be used to tailor care to the individual needs of older adults, making it possible to deliver personalized, timely interventions. Furthermore, this ability to provide continuous monitoring is regarded as crucial in supporting aging individuals in living independently and reducing their reliance on caregivers, as discussed by Sapci and Sapci (2019).

Nevertheless, as promising as AI is, there are significant challenges to its implementation in geriatric care. For one, AI systems need to be accessible and easy to use, which requires integration into existing healthcare systems. Czaja and Ceruso (2022) highlight that AI must be user-friendly and designed to complement, rather than replace, traditional healthcare services. Additionally, AI models must be inclusive, considering the diverse needs of older adults from diverse backgrounds. This highlights the importance of collaboration between engineers, healthcare professionals, and aging individuals to ensure that AI technologies meet the specific needs of older adults.

To fully unlock AI's potential in geriatric care, ongoing investment in research and development is crucial. As Czaja and Ceruso (2022) highlight, the creation of new tools alone is insufficient; we must also carefully consider the ethical and social implications of integrating AI into healthcare. By ensuring that AI is used responsibly and effectively, we can improve caregiving and health management for older adults, complementing the expertise of healthcare

professionals. The future of AI in geriatric care holds exciting possibilities, such as predictive analytics, real-time monitoring, and personalized care, which could drastically improve health outcomes and quality of life for aging populations.

AI is revolutionizing clinical psychology and mental health interventions by offering innovative tools to enhance assessment, treatment, and care delivery, particularly for older adults who may face barriers to traditional in-person care. AI technologies, including machine learning, deep learning, natural language processing, wearable devices, virtual assistants, and predictive analytics, are transforming the way mental health services are delivered, improving diagnostic accuracy, tailoring personalized treatment plans, and increasing accessibility to essential resources (Czaja & Ceruso, 2022).

These advancements address the unique psychological needs of aging populations, supporting mental health care, fostering independence, and improving overall quality of life (Bogoslov et al., 2024; Pollack, 2005). However, ethical considerations such as privacy, autonomy, and responsible integration must be carefully addressed; only in this way can these technologies be used fairly and effectively in mental health care (Mhlanga, 2024). Ultimately, only by doing so can AI be fully utilized to support the mental health of older adults and meaningfully improve their lives.

AI in Psychological Assessments: Integration into Medicine, Psychology, and Care for Older Adults

Current Methods in Psychological Assessments

Psychological assessment, as defined by the American Psychological Association (APA, 2018), is a systematic process for gathering and integrating data to evaluate an individual's behavior, abilities, and characteristics. Traditional methods, including standardized tests, clinical interviews, and behavioral observations, have been foundational in addressing complex clinical, educational, and organizational referral questions, ensuring validity and reliability by combining empirical evidence with clinical expertise and considering individual and cultural differences (Naglieri & Graham, 2012; Weiner, 2003). In spite of the fact that conventional procedures are successful, they require a significant amount of resources and sometimes fail to take into consideration the inconsistent character of symptoms. According to Nelson et al. (2017), this highlights the need of novel approaches such as ecological momentary assessment (EMA) and dynamic, person-specific assessments, which provide data in real-time and insights that are specifically suited to the individual participant. On the other hand, in order to satisfy the growing need for psychological evaluations among older populations, these developing systems need to be scalable.

However, traditional assessment methods face significant limitations. Clinical interviews and self-report questionnaires are often resource-intensive and fail to capture the dynamic nature of psychological processes, such as symptom fluctuations and behavioral changes (Meyer et al., 2001; Wright & Hopwood, 2016). Moreover, cultural biases in standardized tools can hinder accurate evaluations, underscoring the need for culturally sensitive frameworks, such as the DSM-5 Cultural Formulation approach (Leong et al., 2019).

Innovations such as ecological momentary assessment (EMA) and person-specific dynamic assessments address these limitations. EMA captures real-time data on symptoms, behaviors, and emotions, while advanced statistical techniques in person-specific assessments reveal interconnections between individual symptom patterns, informing precise treatment strategies (Fisher, 2015; Moskowitz & Young, 2006). Additionally, frameworks like dynamical systems theory and network theory model the evolution of psychopathology, uncovering symptom interdependencies for more effective interventions (Nelson et al., 2017).

Technological advancements such as computer adaptive testing (CAT) and item response theory (IRT) have further improved the efficiency, precision, and accessibility of psychological assessments. Evidence-based assessments (EBA) enhance clinical evaluations by focusing on prediction, prescription, and process measurement, addressing the resource-intensive nature of traditional methods (Meyer et al., 2001; Youngstrom et al., 2017).

AI-Driven Tools for Cognitive and Emotional Evaluations

AI is fundamentally transforming psychological assessments by improving the precision, accessibility, and efficiency of cognitive, emotional, and behavioral evaluations. Traditional methods often fail to capture the complexity of psychological phenomena or provide scalable, real-time solutions. In contrast, AI tools can analyze large and diverse data sets, such as speech, movement, facial expressions, and neuroimaging, to detect early signs of psychological disturbances, enabling more accurate and timely diagnoses.

Behavioral assessments use machine learning algorithms to analyze speech and movement patterns, allowing for the early detection of neurodegenerative conditions like dementia and Parkinson's disease (Favaro et al., 2022). Emotional assessments leverage facial recognition and voice analysis technologies to identify subtle changes indicative of anxiety or depression. Recent studies have explored these technologies, demonstrating their potential to detect mental health issues. Significant advancements in video-based assessments (Grimm et al., 2022) and multimodal approaches

(Barra et al., 2023) have improved diagnostic accuracy by combining multiple data sources. Wearable devices continuously monitor physiological parameters, such as heart rate variability (HRV) and electrodermal activity (EDA), which can help detect stress and anxiety in real-time, facilitating health tracking and enabling timely interventions (Y. Zhang et al., 2024). These devices also have the potential to monitor biomarkers in body fluids like sweat, saliva, and interstitial fluid, offering valuable insights into metabolic health and stress levels. This provides a non-invasive alternative to traditional monitoring methods (Hickey et al., 2021). AI-powered platforms, such as the Integrated Cognitive Assessment (ICA), support cognitive assessments by utilizing biomarkers and serious games to detect cognitive decline with high sensitivity and specificity (Kalafatis et al., 2019). Furthermore, neuropsychological assessments combine advanced neuroimaging tools with AI algorithms to detect Alzheimer's disease early and support targeted interventions (Rai et al., 2020). These innovations are especially crucial for aging populations, as early detection of cognitive decline and emotional distress can significantly enhance overall quality of life.

AI in Emotional Assessments

AI's integration into emotional health assessments has significantly advanced the detection of emotional disturbances such as anxiety, depression, and stress. Leveraging technologies like facial recognition, voice analysis, and sentiment detection, AI systems analyze subtle cues in facial expressions and vocal tones to identify emotional fluctuations (Graham, Lee, et al., 2019; Shimada, 2023). These systems are particularly effective in detecting signs of anxiety and depression, even when individuals do not explicitly report them, a finding supported by research indicating that AI tools can identify emotional disorders by analyzing facial images, speech signals, and other features (Barua et al., 2022). In fact, social robots powered by AI, such as "Furhat," have proven to be effective tools in assessing emotional states like stress and depression, offering a more comfortable, non-traditional alternative to conventional methods of emotional health assessment (Nandanwar & Dutt, 2023). Wearable devices contribute to the real-time monitoring of emotional health by measuring physiological markers such as heart rate and skin conductance (Shiwani et al., 2023). These tools continuously track mood shifts and stress levels, offering clinicians a dynamic view of patients' psychological profiles and enabling personalized interventions (Ding et al., 2022). Tools like EmoGlass, which recognizes facial expressions through wearable glasses, have shown promise in detecting emotions during daily life and improving emotional awareness through a mobile app. What makes EmoGlass even more

powerful is its ability to integrate additional data, like electrodermal activity (EDA) and photoplethysmogram (PPG), improving its accuracy and offering users continuous support for emotional tracking and self-regulation (Kwon et al., 2021; Yan et al., 2022).

AI in Cognitive Assessments

AI technologies have significantly enhanced cognitive assessments, especially in the early detection of neurodegenerative diseases such as Alzheimer's. AI-based tools like the Integrated Cognitive Assessment (ICA) provide diagnostic accuracy by analyzing data from multiple sources, including neuroimaging, speech patterns, and biomarkers (Kalafatis et al., 2019). The ICA has demonstrated superiority over traditional tests like MoCA and ACE-III, particularly in its ability to identify mild cognitive impairment and Alzheimer's disease (Kalafatis et al., 2019). Digital biomarkers derived from tests assessing memory, executive function, and tasks like handwriting or serious games have proven effective in distinguishing between healthy individuals and those with cognitive impairments (Ding et al., 2022; Stuck & Walker, 2018). These AI-driven approaches enhance sensitivity and specificity by incorporating factors such as professional skills, personal traits, and communication, which are critical for building trust in technology. As a result, they offer more efficient and culturally unbiased early detection methods (Li et al., 2022; Modarres et al., 2021).

AI in Neuropsychological Assessments

AI has revolutionized neuropsychological assessments by integrating advanced neuroimaging techniques with AI algorithms to detect biomarkers of Alzheimer's and other cognitive disorders. Tools like MRI, PET, and CT scans, when analyzed using AI, facilitate early and accurate diagnoses by identifying subtle brain changes that traditional methods might overlook (Kale et al., 2024). Digital biomarkers, such as those used in the Altoida ADPS app, employ gamified exercises to detect early signs of cognitive decline, offering sensitive, objective, and continuous monitoring (Rai et al., 2020). AI's ability to combine genetic, imaging, and behavioral data enhances the accuracy of disease progression predictions, aiding in the development of effective treatment plans (Kale et al., 2024). Despite its promise, ethical challenges such as data privacy and algorithmic bias remain significant concerns in the implementation of AI-driven neuropsychological tools (Dashwood et al., 2021).

Integrating AI into Psychological Care

AI is revolutionizing healthcare by offering personalized solutions that are crucial for psychological care in older adults. Mody and Mody (2019) highlight that AI's capacity to customize care plans based on individual needs, especially for those with complex psychological conditions, marks a transformative breakthrough. By analyzing

diverse data points, AI can recommend interventions tailored to the cognitive and emotional health of each person, enabling more targeted and effective strategies. However, this potential must be realized while considering the ethical implications, including informed consent and transparency in decision-making.

AI enhances personalized care planning by adapting interventions based on specific behavioral triggers continuously assessing patterns and emotional responses to suggest real-time adjustments to care plans (Mody & Mody, 2019). This adaptability is crucial for addressing the dynamic nature of psychological conditions in older adults, whose needs often evolve due to cognitive decline, emotional changes, or the progression of chronic conditions. For instance, AI technologies can dynamically adjust care strategies to manage memory impairments in dementia or shifts in emotional states caused by social isolation. Social robots like Paro further exemplify AI's potential by enhancing emotional health and reducing loneliness, offering companionship, facilitating social interactions, and providing therapeutic benefits (Chen et al., 2020; Randall et al., 2019). Research also underscores the importance of therapist mediation and contextual adaptation in maximizing the effectiveness of AI-based interventions (Chang et al., 2013).

AI's role in dementia management provides a compelling example of its capabilities. Ranade et al. (2018) and Mody and Mody (2019) explain how machine learning and natural language processing technologies assist in the early detection, diagnosis, and treatment of dementia. These tools not only monitor behavioral changes but also evaluate cognitive and emotional functioning, supporting the refinement of care plans over time. Mody and Mody (2019) also note the potential of socially assistive robots and robotic pets to enhance emotional health, reduce social isolation, and improve the caregiving experience.

In addition to its significant role in dementia care, AI has broader applications across various aspects of mental health. Luxton (2014) discusses how AI enhances psychological assessment, treatment planning, and clinical decision-making. Moreover, AI-powered tools, including mental health chatbots and virtual counseling platforms, deliver personalized support and psychoeducation. Chatbots offer stigma-free psychological care, addressing anxiety, depression, and stress with high user satisfaction (Abd-Alrazaq et al., 2020; Abd-Alrazaq et al., 2021; Saadati & Saadati, 2023). Virtual reality therapies create immersive environments that alleviate symptoms of anxiety and depression, fostering coping skills and enhancing emotional well-being. Booth et al. (2022) emphasize the importance of refining these tools based on user feedback to ensure

reliability and emotional sensitivity (Hemalatha et al., 2024). Similarly, D'Alfonso (2020) highlights the use of AI-enhanced digital interventions through web and smartphone applications for personalized mental health care. Predictive modeling tools, which analyze digital data such as social media interactions, are increasingly being developed and assessed for their potential to identify mental health conditions at an early stage (D'Alfonso, 2020). However, as Irshad et al. (2022) and Luxton (2014) caution, the implementation of AI in mental health care raises concerns about job displacement and ethical issues, such as data privacy and algorithmic transparency. In geriatric mental health, AI is proving valuable for the early detection and management of cognitive decline. Lee et al. (2022) and Wei et al. (2023) describe how AI technologies, such as machine learning, natural language processing, and deep learning, analyze diverse data sources like electronic health records to predict and diagnose mental health conditions in older adults. For example, Lee et al. (2022) note that AI can detect Alzheimer's disease years before its onset and monitor agitation in dementia patients, thereby facilitating earlier and more effective interventions. However, Graham, Depp, et al. (2019) caution that while AI shows promise in predicting cognitive decline with high accuracy, further validation is required to ensure its reliability. Ethical concerns, including algorithmic bias, data privacy, and transparency, also need to be addressed before widespread implementation (Wei et al., 2023). Finally, dementia care illustrates the multifaceted applications of AI in psychological care. Guzzi and Veltri (2023) describe how AI-driven frameworks are used to create memory-related videos for non-pharmacological interventions, while Savoia et al. (2021) highlight its role in reducing caregiver burden through personalized assistive services. However, as Tsoi et al. (2022) and Andargoli et al. (2024) note, challenges such as data limitations, high implementation costs, and variability in algorithm performance remain significant barriers. Researchers are exploring innovative approaches, such as digital twin-based patient journey models, to expand the scope of AI applications in dementia care (Andargoli et al., 2024). While AI has demonstrated potential in psychological care, Luxton (2014) and Gual-Montolio et al. (2022) emphasize that more research is needed to evaluate its long-term efficacy. For example, computer-aided tools informed by psychological insights are advancing psychotherapy by analyzing affective domains and cognitive interaction patterns (de Mello & de Souza, 2019). However, ethical considerations, particularly regarding transparency and bias, remain pressing issues.

AI in Psychological Treatment for Older Adults

AI is revolutionizing psychological treatment for

older adults by introducing innovative, scalable, and personalized approaches tailored to their unique mental health needs. Technologies such as machine learning, natural language processing (NLP), and wearable sensors enable early detection of cognitive decline and psychological distress. Wei et al. (2023) demonstrate how AI algorithms analyze clinical and behavioral data to diagnose conditions such as anxiety, depression, and dementia with remarkable precision. These capabilities enable more accurate diagnoses and targeted interventions, fundamentally enhancing care delivery for older adults. Digital health applications, such as the Altoida ADPS app, employ gamified exercises to detect early signs of cognitive decline and provide sensitive monitoring (Rai et al., 2020).

One of the most transformative contributions of AI is its capacity for continuous psychological monitoring. Smartphones and wearable devices equipped with AI algorithms collect real-time data to predict emotional states, detect cognitive changes, and assess risks for psychological distress (Mittal et al., 2023). This initiative-taking approach ensures timely interventions, particularly for older adults who may face barriers to accessing traditional healthcare services. Darzi (2023) underscores the role of AI-powered virtual assistants and chatbots, which provide psychoeducation, emotional support, and preliminary assessments. These tools are especially beneficial for individuals with mobility challenges or those residing in remote areas, bridging critical gaps in accessibility without replacing human care. Furthermore, wearable devices facilitate proactive interventions by enabling sensitive and continuous monitoring of emotional and cognitive states (Mittal et al., 2023).

AI is also reshaping therapeutic interventions through technologies specifically designed for older adults. Socially assistive robots (SARs), such as Pepper and ELLIQ, play a pivotal role in addressing loneliness and promoting emotional well-being. Lee et al. (2022) emphasize how these robots engage older adults through personalized interactions, memory exercises, and cognitive games, improving both emotional and cognitive health. Chen et al. (2020) conducted a study with Paro robots in long-term care facilities, demonstrating significant reductions in depression and loneliness among participants. Thematic analyses revealed that participants valued the robot's humanizing features, which fostered social interactions and companionship. Chang et al. (2013) and Randall et al. (2019) emphasize the importance of understanding individual interpretations and broader social contexts in enhancing the therapeutic potential of such robots. Hemalatha et al. (2024) further explore virtual reality (VR) therapies, demonstrating how immersive environments can significantly reduce anxiety and depression

symptoms while fostering coping skills. Together, SARs and VR interventions provide interactive, engaging, and scalable solutions to common psychological challenges faced by older adults. AI-driven digital health applications are significantly expanding the possibilities of traditional therapies, merging cutting-edge technologies with time-tested practices to improve well-being. Among the most promising innovations are mobile health applications, especially mental health chatbots, which have shown great potential in supporting older adults by reducing depressive symptoms and enhancing their overall well-being (Chou et al., 2023). Riboni et al. (2020) highlight the potential of tools like VR, telemedicine, and smartphone applications in enhancing treatment accessibility and scalability. These innovations address key barriers such as stigma and logistical challenges, empowering older adults to engage with mental health resources in more discreet and user-friendly ways. Importantly, these technologies complement, rather than replace, human therapists, ensuring that care remains holistic and patient-centered. Despite its transformative potential, the integration of AI into psychological care for older adults poses ethical and practical challenges. While these advancements provide immense benefits, they also bring challenges that require careful consideration. Algorithmic bias, data privacy concerns, and equitable access are among the most significant issues requiring attention (Martinez-Martin, 2021; Olawade et al., 2024). To address this, it is essential that AI developers use inclusive, diverse data that reflects the varied experiences of older adults, ensuring that these technologies are equitable and fair. The need for privacy is another critical issue, as the personal nature of mental health data demands robust safeguards to protect users' confidentiality and build trust. Older adults must feel safe and confident when using these tools, knowing their sensitive information is secure. Algorithms trained on non-representative datasets risk perpetuating disparities in mental health care, underscoring the need for diverse and inclusive training data. Huang et al. (2024) call for the development of transparent, Explainable Artificial Intelligence (XAI) systems that allow users and clinicians to understand how decisions are made by AI, which will help build trust and reduce concerns about potential bias. At the same time, Cortellessa et al. (2021) stress the importance of involving older adults directly in the design of these technologies. Actively involving older adults in the development of these technologies ensures usability, comfort, and broader acceptance. In conclusion, AI holds immense potential to transform psychological treatment for older adults by offering early detection, continuous monitoring, and innovative therapeutic interventions. Tools such as socially assistive robots, VR therapies, and AI-powered chatbots provide scalable solutions to

address challenges like mobility limitations and social isolation. However, for these technologies to reach their full potential, ethical considerations, inclusive design, and equitable access must be prioritized. Future research should focus on advancing AI applications while addressing ethical challenges, ensuring that AI becomes a reliable and accessible resource for improving the mental health and overall well-being of older adults.

Challenges And Ethical Considerations

The integration of AI into psychological assessment and healthcare offers transformative potential in addressing the needs of older adults. However, alongside its promise, significant ethical and practical challenges demand attention. A primary concern is the protection of sensitive health information. AI systems, which process vast amounts of personal data, must adhere to stringent privacy and security standards to protect patient confidentiality. Giannouli (2023) emphasizes that safeguarding data is not merely a technical requirement but a cornerstone for building trust with older adults who may already harbor skepticism about these technologies. Solanki et al. (2022) further suggest operationalizing ethical principles throughout the AI lifecycle to address these concerns effectively. Addressing this skepticism requires proactive trust-building measures, such as transparent communication and demonstrable reliability, to ease concerns and encourage adoption.

Balancing the roles of AI and human caregivers is another critical aspect. While AI can revolutionize care through tools like predictive modeling and personalized interventions, it cannot replace the empathy and nuanced judgment of human clinicians. Cascella et al. (2023) describe how multimodal AI tools for pain assessment hold promise but stress the need for collaboration between healthcare providers and AI developers to create ethically robust solutions. Cascella et al. (2023) also highlight that AI should complement, not replace, human caregivers, ensuring that AI augments rather than diminishes the human element in care delivery. In complex scenarios requiring empathy and intuition, AI should serve as a supportive tool rather than a substitute, augmenting rather than replacing human expertise.

Algorithmic bias presents yet another pressing challenge. If training data is not representative, AI systems risk perpetuating existing inequities in healthcare, particularly for marginalized groups, including older adults. Timmons et al. (2022) point out that ensuring AI systems are "fair-aware" is crucial. This involves using diverse datasets that reflect variations in age, culture, and socioeconomic status. Yin and Bickmore (2018) advocate for culturally adaptive AI systems that align with diverse patient needs, reducing disparities and enhancing engagement. Developing inclusive datasets and transparent algorithms is essential for achieving

fairness and inclusivity in AI applications (Chen et al., 2023; Iloanusi & Chun, 2024). Researchers also propose adapting traditional research ethics to address the specific challenges posed by AI technologies, particularly in low- and middle-income countries (Ho & Malpani, 2022). Without such precautions, AI might reinforce disparities rather than bridge them. Furthermore, usability concerns, such as the need for intuitive interfaces and adaptive technologies, are vital to making these systems accessible and effective for older adults, especially those with sensory or cognitive impairments. Ethical considerations also extend to autonomy and informed consent. AI tools like smart assistants, which often make initiative-taking decisions, can inadvertently undermine user autonomy if not designed thoughtfully. London et al. (2023) warn that this could erode well-being by diminishing the sense of control older adults have over their care. To counteract this, multidisciplinary collaboration is essential. Healthcare providers, ethicists, and AI developers must work together to embed ethical principles into the design and implementation of AI technologies. Strategies such as explainable AI, which allows users to understand and trust AI-driven decisions, and inclusive design approaches can help ensure these tools empower older adults while preserving their dignity and agency. AI has immense potential to transform the landscape of psychological and healthcare support for older adults, but its integration must be guided by a commitment to ethical and humane practices. By addressing privacy concerns, minimizing bias, and fostering collaboration between humans and AI, we can build systems that truly support and uplift this vulnerable population.

CONCLUSION

AI is revolutionizing mental health care, offering transformative potential in psychological assessment and treatment for older adults. Techniques such as supervised learning (AI systems trained with labeled datasets) and deep learning (algorithms that mimic human neural networks) enable early detection and diagnosis of conditions like anxiety, depression, and dementia (Wei et al., 2023). AI-powered tools—like chatbots, virtual assistants, and AI-driven virtual therapists—not only improve diagnostic accuracy but also tailor treatment plans to the individual and provide ongoing support, ensuring that help is always within reach (Balasubramanian, 2023; Shimada, 2023). These advancements are crucial in meeting the growing psychological needs of older adults by making care more accessible, efficient, and timely, all while promoting greater independence through community-based care models (Czaja & Ceruso, 2022; Yousefi et al., 2023). For example, AI applications have been successfully implemented

in early dementia screening, improving diagnostic efficiency (Shiwani et al., 2023). Additionally, tools like socially assistive robots and chatbots provide scalable solutions to address loneliness, depression, and cognitive decline, offering new ways to support mental health care for older adults. Despite these benefits, integrating AI into mental health care poses significant challenges. Ethical concerns, such as data privacy, algorithmic biases, and transparency issues, remain critical barriers to adoption (Olawade et al., 2024; Shimada, 2023). Biases in training datasets, for instance, can exacerbate health disparities, particularly among underserved populations (Shiwani et al., 2023). While AI holds immense potential, addressing challenges related to privacy, bias, and human-AI collaboration is crucial to ensure that technological advancements enhance, rather than hinder, the quality of care for older adults. Furthermore, the absence of standardized regulatory frameworks complicates the safe and effective deployment of AI technologies in clinical practice. Addressing these issues requires a multidisciplinary approach that includes perspectives from older adults, caregivers, healthcare professionals, and AI developers. This collaboration can ensure that AI systems are user-friendly, culturally sensitive, and adaptable to the diverse needs of older adults (Yousefi et al., 2023). Older adults' interactions with AI technologies reveal both opportunities and barriers. For example, older adults often value autonomy and social connection, which AI tools like Hyodol conversational agents can enhance by providing personalized, home-based therapy (Mhlanga, 2024). However, successful adoption also depends on education and training initiatives to increase trust in AI and facilitate its use among older adults and healthcare providers (Shiwani et al., 2023). Ensuring ethical practices, transparency, and inclusivity in the design and implementation of these tools is key to fostering their adoption and maximizing their impact on mental health care for older adults.

FUTURE DIRECTIONS

To maximize AI's potential, key priorities must guide its development and integration into mental health care: ***(1) Advancing Algorithmic Capabilities:*** Developing robust algorithms capable of processing multidimensional data, combining behavioral, neurophysiological, and contextual inputs, can enhance the accuracy and applicability of AI tools (Wei et al., 2023). ***(2) Enhancing Usability:*** To ensure meaningful engagement, it is vital to design interfaces that are user-friendly and intuitive and that also take into account the preferences and capabilities of older persons (Yousefi et al., 2023). ***(3) Scaling Validation Studies:*** Scaling validation studies are necessary to understand AI's true impact. Long-term,

large-scale studies will validate AI's effectiveness and ensure its ability to work across diverse populations and real-world environments (Shiwani et al., 2023). Ongoing research is needed to validate AI's long-term efficacy and explore its applications in diverse populations. Collaborative efforts among developers, clinicians, and policymakers can address ethical and practical challenges, ensuring that AI benefits all aging populations. Nasir and colleagues (2024) emphasize the need for frameworks that prioritize transparency, equity, and accountability in order to ensure that AI development and deployment are ethical and just. (4) Establishing Ethical Frameworks: Clear guidelines are needed to address privacy, transparency, and fairness in AI systems. According to Olawade et al. (2024), these frameworks should do their best to emphasize the rights and dignity of older persons while simultaneously avoiding prejudices and injustices. Integrating AI into community-based care models holds profound promise, not only by supporting aging in place but also by empowering older adults to maintain their independence and reduce reliance on institutional care. With the help of AI, the concept of personalized care delivered in the comfort of one's home can help enhance the level of independence and quality of life of older adults. Remote monitoring systems, as pointed out by Czaja and Ceruso (2022) and Mhlanga (2024), can identify the signs of cognitive decline as early as possible, thus enabling intervention. Additionally, conversational AI tools are always available to provide emotional support, reducing feelings of isolation and strengthening relationship bonds. Technologies such as digital twins and predictive analytics have the potential to radically change the approach to mental health care, making treatment more personalized and preventive (Spitzer et al., 2023; Vallée, 2023). As argued by Park and colleagues (2023), human digital twins can enhance the care of patients by using the data generated from the patients. These developments are not only enhancing the quality of health care but are also changing the face of aging, making it more integrated, sensitive, and caring. It is therefore important that education and training of clinicians and patients will play a big role in the integration of AI and in the achievement of the right utilization of the technologies. In the same way, policymakers and healthcare providers must also work on developing equitable access frameworks for the digital divide since AI-driven care solutions must be available to all older adults, irrespective of their economic background (Shiwani et al., 2023). In conclusion, here, the author discusses the ways in which AI can transform the delivery of mental health services for older adults in a positive manner. However, its successful implementation is not without its challenges; ethical issues have to be addressed, algorithmic transparency needs

to be enhanced, and all the stakeholders need to come together. Thus, focusing on person-based strategies and involving several disciplines, AI has the potential to improve the quality of mental health care for people of high age. According to Luxton (2014), the integration of psychologists in the formation, assessment, and management of AI technologies is crucial for their appropriate and right use. In this context, the role of psychologists is crucial in translating the technological potential into the needs of the older adult population. This means that they can contribute to the advancement and implementation of AI so that these tools would not only achieve the clinical objectives but also preserve the fundamental principles of dignity, empathy, and non-discrimination in the field of mental health.

ALIGNING AI WITH THE VISION OF THE JALTC

For those working in this field, AI integration goes beyond being a technological solution. In line with the goals and objectives of the Journal of Aging and Long-Term Care (JALTC), AI has the potential of assisting in issues that are of concern to the well-being of older adults, including accessibility, independence, and quality of care. Indeed, in the near future, care models for older adults will not only be smarter but also more compassionate. Furthermore, psychologists, gerontologists, and other healthcare providers will work together to ensure that older adults receive care that is both human-centered and innovative. In addition, this mentioned integration will not only address mental health issues but also contribute to the development of culturally sensitive and evidence-based public policies that reflect the needs of the aging population. This is both a necessity and an inevitable situation. The entire scientific community, as well as policymakers and practitioners, should know that technology should not be used as a mere tool to enhance the quality of life in this process but as a force that meaningfully improves individuals' lives—and it will be used as such. As technological advancements continue at full speed worldwide, it is extremely important for scientists and professionals in the fields of aging and long-term care to be excited and knowledgeable about progress in AI and the effective and comprehensive application of technological developments. In this way, we can create a future where older adults not only receive compassionate and dignified care but also feel supported and uplifted by the incredible potential of technological advancements, all while collaborating with every stakeholder who shares this vision. These efforts are substantial and align closely with JALTC's objective, which is committed to strengthening care sectors, enhancing quality of life, and affirming that dignified living is a basic right. Together, we shall create a future defined by dignity and satisfaction!

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COVID-19 Vaccination Rates and Influences among United States Nursing Home Administrators and Other Staff

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ABSTRACT

COVID-19 has brought significant challenges to public health messaging and the dissemination of research to the public. Residents and healthcare staff are at increased risk for COVID-19 being in settings such as skilled nursing facilities and are at particularly high risk due to their older adult population and their higher presence of underlying chronic medical conditions. For this study, the National Association of Long-Term Care Administrator Boards provided their contact list of 1.159 currently licensed nursing home administrators in the United States (US) in the spring of 2021. Data from 1,004 completed surveys of US licensed nursing home administrators and their employees measuring COVID-19 vaccination rates and influences. A majority of participants (85.0%) planned to or had already received the vaccine. Common themes surrounding the participants' perceptions of the COVID-19 vaccine included wanting to protect themselves, their families, and co-workers and to stop the spread of the virus, among others.

KEYWORDS: COVID-19 Vaccine Development; Healthcare Workers; Vaccination Influences; Influenza Vaccine Knowledge.

KEY PRACTITIONER MESSAGE

1. Protection of self, family, and others, including residents, positively influenced healthcare practitioners to consider getting the vaccine.
2. Healthcare administrators better understand how educational information provided to their staff can help spread evidence-based knowledge surrounding topics such as the development of the COVID-19 vaccine.
3. Education containing factual information while appealing to staff's desire to safeguard themselves and others May improve vaccine rates among nursing home administrators and other staff.

INTRODUCTION

COVID-19 has brought significant challenges to public health messaging and the dissemination of research to the public. Residents and long-term care (LTC) staff are at increased risk for COVID-19. Skilled nursing facilities are at high risk due to their older adult population and their higher presence of underlying chronic medical conditions. Due to their increased risks, LTC facilities were one of the first to be considered to receive the COVID-19 vaccination (Gharpure et al., 2021). Healthy healthcare workers are required to have a healthy healthcare system (Kwok et al., 2021).

Vaccination hesitancy is the reluctance or refusal to be vaccinated. This is a leading global health threat (Van Dussen et al., 2024). Understanding these reluctances, the prevalence of vaccination hesitancy, the motivational roots of this hesitancy, and the most promising incentives to help this issue need to be identified. Studies have found vaccination hesitancy to be most correlated with mistrust of vaccine benefits. In addition, many worry about the unforeseen effects of vaccines and pharmaceutical companies' commercial profiteering and would, as a result, prefer natural immunity. Evidence of rigorous testing and vaccine safety is necessary to reduce vaccine hesitancy; it cannot be perceived as rushed or premature (Taylor et al., 2020). Furthermore, inadequate information about vaccine safety, side effects, and administration was circulated at the time of the survey. Skepticism about clinical trials and vaccine approval processes also exists. Repeating surveys suggest that such hesitancy is persisting (Gharpure et al., 2021).

Vaccine hesitancy is a concept that applies to new vaccines. Influenza vaccination patterns in particular are similar in hesitancy patterns to what has been observed with the COVID-19 vaccine. For example, during the 2017-2018 influenza season, vaccination coverage was lower among LTC staff than among other healthcare workers (Gharpure et al., 2021). As of August 2021, only 62% of the United States skilled nursing facility workforce was vaccinated (CMS, 2021). Hesitancy to receive the vaccination was due to skepticism about vaccine effectiveness as well as perceived low-risk virus transmission from themselves to others. To combat this lack of awareness and understanding of the vaccine-influenced poor uptake, healthcare employees must increase efforts to promote benefits (Canning et al., 2005). A better understanding of vaccine hesitancy is needed to help vaccine campaigns move forward (Berry et al., 2021).

Low-vaccinated staff members are a large concern (Gharpure et al., 2021). Vaccine confidence is the perceived benefit and safety of vaccines and trust in health professionals (Karlsson et al., 2019). Studies like the one done by Karlsson et al. (2019) showed

that perceived benefit had a higher association with getting and recommending the vaccine over trust in health professionals. Additional studies show that the relationship between trust in coworkers and organizations relate is significant (Tan & Lim, 2009). Many individuals at the time reported getting information about the COVID-19 vaccine from their friends and social media (Berry et al., 2021). Their largest concerns involved how rapidly vaccines were developed and concerns with side effects, including infertility or pregnancy-related concerns (Berry et al., 2021). The study by Berry et al. (2021) found that sharing positive emotions and stories may be more effective in increasing positive attitudes towards the vaccine than data itself.

In the spring of 2021, when this study was conducted, Pfizer-BioNTech and Moderna vaccines were the two companies whose vaccines were available for public distribution (Food and Drug Administration-FDA, 2021; Moderna Receives Full U.S. FDA Approval for COVID-19 Vaccine Spikevax, 2022; Van Dussen et al., 2024). At the time, vaccine acceptance depends on several factors, including public trust and confidence in the safety and efficacy of vaccines and immunization, the health system, healthcare professionals, and the wider vaccine research community (Berry et al., 2021).

This research study investigated the COVID-19 vaccination rates and influences among nursing home administrators and other staff in the United States. The results of this study are part of a more extensive study to investigate the attitudes and beliefs of nursing home administrators and other staff toward the COVID-19 vaccine (Van Dussen et al., 2024).

METHOD

A survey was constructed in Alchemer about COVID-19 vaccine attitudes and beliefs among nursing home administrators and other staff (Canning et al., 2005; Gharpure et al., 2021; Kimura et al., 2007; La Torre et al., 2017; Norris et al., 2017). Authors were granted permission to use The National Association of Long-Term Care Administrator Board's (NAB) official e-mail list of all Licensed Nursing Home Administrators (LNHA) within their purview.

Snowball sampling was utilized in this study, so a response rate cannot be calculated. Alchemer was used to send the initial email message and two follow-up messages to the list of 27.419 emails between March 12 and May 9, 2021. There were 11.097 invalid emails, which narrowed the total emails sent to potential participants to 26.222. These emails contained an introduction explaining the purpose, a survey link, and an attached participant recruitment flyer. The flyer contained study information, the link to the study, and a QR code for potential participants to link directly to the survey. LNHA's were asked to

forward the email and/or link to all their employees. The Youngstown State University Institutional Review Board (IRB) approved this study (#2021-73). All participants were required to provide informed consent electronically as part of the survey introduction before they could continue with the survey. To participate in the survey, participants were required to be at least 18 years old (7 were disqualified due to age). Of the responses, there were 155 partial responses and 1.004 complete responses. Incomplete responses were not used in the final sample size of 1.004.

The information for this study was gathered using surveys sent and completed by eligible participants. The survey consisted of a number of questions, including multiple choice, fill in the blank, and select all that apply (see Appendix). An analysis of the questions with open-ended answers was performed. Statistical analysis was conducted to gather demographic and background information, including job title and facility type, vaccination rates, and barriers. Various questions were asked regarding the participant's views and history with the COVID-19 vaccine. These questions included whether they were offered or received the vaccine and additional questions on their decisions and viewpoints regarding the vaccine. IBM SPSS Statistics (version 29.0) was used to analyze the data. A frequency distribution analysis was performed on the responses to the survey questions. An analysis of demographics was done on the sample to examine gender, race, and ethnicity, as well as the respondent's highest level of education obtained, marital status, and income levels. Cross-tabulations were performed next to examine vaccination rates and influences by job position held, levels of care, types of organization, and work status.

RESULTS

Most participants in the survey were Caucasian (87.0%) females (69.7%), with a median age of 51 years and a range of 18 to 84 years. The majority (68.1%) were married. Just under half of participants, at 45.9%, were graduates from a college or university, with 68.2% making over $90.000 per year working in LTC facilities (76.8%). The geographic locations varied, with people responding from Pennsylvania (n=108; 10.8%); New York (n=97; 9.7%); Texas (n=68; 6.8%); and Ohio (n=61; 6.1%), among many other states. Half of all participants (51.8%) were licensed nursing home administrators and working for similarly split profit (52.9%) and non-profit (47.1%) facilities.

The most commonly held positions among the participants were licensed nursing home administrators (51.8%) and administrative/clerical (21.9%). Other commonly listed positions by the participants included registered nurses (RN; 6.6%) and state-tested nurse aides (STNA)/home health aide/certified nursing aide/nurse aide (4.1%). The

survey also asked the participants to list the level(s) of care they provide. The sample included several levels of care, with the largest being long-term care (27.8%), skilled nursing (23.1%), rehabilitation (17.3%), assisted living (13.0%), and hospice (9.7%). Most participants (92.7%) were full-time employees.

Over half (54.8%) of these participants were concerned about the side effects the vaccine may cause. Less than half (43.7%) of the participants expressed other concerns, such as the lack of trust in the vaccine due to the fact that no long-term studies were being conducted. Even if these concerns were eliminated, 73.8% of participants said they would still not receive the vaccine.

When asked about the participants largest influences on their perceptions of the COVID-19 vaccine, there were multiple common themes. These themes included wanting to protect their family, themselves, and co-workers. In addition, they wanted to stop the spread of the virus. The dissemination of the science behind the development of the COVID-19 vaccination influenced perceptions. The speed of the vaccine's development and rollout did give some participants pause. Others were concerned about the government's role and conspiracies about the role of government in creating and disseminating the vaccine. Lastly, many were influenced by their own experiences, whether they had contracted the COVID-19 virus themselves or known somebody else who had.

Other questions were asked about the availability and receiving of the COVID-19 vaccine. A majority (98.5%) reported being offered the COVID-19 vaccine. Of those offered the vaccine, 85% had either received or were scheduled to receive the vaccine, leaving 15% not planning to receive the vaccine.

DISCUSSION

Vaccine hesitancy towards the influenza vaccine has been studied over the last few decades across the world (Canning et al., 2005; Gharpure et al., 2021; Kimura et al., 2007; La Torre et al., 2017; Norris et al., 2017). This paper expands upon current understandings of influenza vaccine hesitancy and applies it to COVID-19 vaccine hesitancy.

The route from development to administration of the influenza vaccine resulted in a similar pattern of hesitancy, spreading of misinformation, and skepticism, as was observed with the COVID-19 vaccine. The global pandemic occurred during an era where social media outlets were a place where many people obtained their sources of information, which both encouraged and sought to disprove rumors surrounding the source of the coronavirus itself as well as all of the coverage surrounding the development and distribution of the COVID-19 vaccine.

The developmental process of the influenza vaccine

compared to that of the COVID-19 vaccine is similar (Canning et al., 2005). A majority (70.7%) of participants in the study indicated that they receive the flu shot every year (Van Dussen et al., 2024). Better understanding the influences regarding why or why not healthcare workers choose to or do not receive vaccines is necessary to assist in increasing overall vaccination rates. This study's findings of nursing home administrators and other staff's concern about the speed of the COVID-19 vaccine's development and distribution support research from two studies conducted at the beginning of the pandemic (Gharpure et al., 2021; Taylor et al., 2020). Most (92.0%) participants indicated receiving educational information about the vaccine from their employer. However, it does not seem this strategy influenced beliefs or counteracted misinformation about the vaccine, especially through social media, since responses in this survey indicated a lack of knowledge about the vaccine's creation (Van Dussen et al., 2024). Likewise, participants were concerned about the speed of vaccine development, yet the pro-vaccine attitude demonstrated in this sample indicates that the benefits outweighed the risks in this sample, and that is ultimately what influenced the participants to get vaccinated (Berry et al., 2021; Van Dussen et al., 2024). Additionally, another concern that was identified in the literature was observed by three participants here, with fertility- or pregnancy-related responses being mentioned as barriers to receiving the COVID-19 vaccine in this study (Berry et al., 2021). The sample in this study showed that a majority of the respondents (85.0%) had responded "yes" to having received the vaccine (scheduled but not received, in progress, or completed) at the time the survey was completed (Van Dussen et al., 2024). Results also showed that protecting oneself, family, and others, including residents, positively influenced people to consider getting the vaccine. They indicated wanting to stop the spread of the virus, which is ultimately what led most participants to get vaccinated. Education containing factual information while appealing to staff's desire to safeguard themselves and others may improve vaccine rates among nursing home administrators and other staff.

Limitations and Directions for Future Research

The authors were not able to reach all nursing home administrators (due to undeliverable e-mail addresses) and other staff directly, so the focus was on asking the LNHAs to distribute the surveys to all employees. The survey used snowball sampling to reach other professions and is cross-sectional. We asked for help from the licensed administrators to circulate the surveys; thus, randomization was impossible. Therefore, limitations of this study were the inequity and potential for bias in participants

regarding positions held by LTC employees. Most participants were employed in administrative positions. This does not reflect the typical distribution of positions in LTC. An explanation for this limitation is that those who received the e-mails were administrators, and they may have chosen to respond to the survey themselves but not pass it along to their staff.

The survey lacked certain inquiries to assess the participants' cost and benefits; however, when this survey was completed, asking about cost was not a priority because it was so early in the pandemic and for vaccine development. Acquiring this knowledge among participants in future studies will mitigate the likelihood of vaccine hesitancy, which could serve as a significant strategy for government intervention. Another limitation identified is that when the survey was developed, there weren't as many vaccine options as now.

By the time the different types of vaccines were released, the survey had already been sent out. Future research should inquire about the participants' views on different COVID-19 vaccines.

Further research is needed to determine ways to remove barriers for nursing home administrators and other staff to receive the COVID-19 vaccine. Strategies to combat misinformation and research on these programs' effectiveness are needed. Qualitative research could help illuminate reasons for mistrust and ways to teach workers about biases. Similarly, it would assist in identifying new quality sources inherent in social media and ways to rebuild trust in vaccines and vaccination programs. Examples of programs include educational programs, including campaigns targeting nursing home administrators and other staff about the vaccine and vaccination incentive programs.

One example of an educational program that was implemented effectively included a program with structured 30-minute information sessions conducted for healthcare professionals who worked with geriatric populations, where the participants demonstrated significant increases in willingness to receive the COVID-19 vaccine, knowledge about the development of the vaccine, and an ability to educate others about the vaccine (Girard et al., 2022). However, each type of program will require subsequent research about the effectiveness of these approaches.

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APPENDIX

Survey Questions

Demographic Information

1. Sex
2. Age
3. Ethnicity
4. Highest level of education completed
5. Marital status
6. What was your household income last year?
7. What levels of care does your place of employment provide?
8. Type of organization
9. City/State of Employer
10. Position
11. Years employed in long term care
12. Are you employed full time, part time, or as needed?
13. Do you work in multiple facilities for the same company? If yes, How many?
14. Do you work for different companies? If yes, How many?

Importance

15. How important do you think the COVID-19 vaccine is?
16. How confident are you that the COVID-19 vaccine decreases the spread of COVID-19?
17. How confident are you that the COVID-19 vaccine prevents people from getting COVID-19?
18. Please indicate your level of agreement about the COVID-19 vaccine with the following statements:
    - ☐ The benefits of the vaccine are greater than the risks for you.
    - ☐ The benefits of the vaccine are greater than the risks for residents/consumers.
    - ☐ The vaccine will prevent me from getting COVID-19.
    - ☐ The vaccine will prevent the residents/consumers from getting COVID-19.
19. Do you trust the COVID-19 vaccine? ☐ If yes ☐ If no, why not?

Experiences

20. Have you been offered the COVID-19 vaccine?
    If yes,
    - Have you received the COVID-19 vaccine?
    - What influenced you to receive the COVID-19 vaccine?
    - What is the one thing that influenced you most to get the COVID-19 vaccine?

    If no,
    - Do you plan to get the COVID-19 vaccine?
    - What are your barriers to getting the COVID-19 vaccine?
21. If your barriers from the above question could be solved, would you get the vaccine? If no, why not?

Sources of Information

22. Were you given any education information about the COVID-19 vaccine from your employer?
23. What are your other sources of information about the COVID-19 vaccine?

Conclusion

24. How often do you get an annual flu vaccine?
25. How likely are you to get the COVID-19 vaccine if your co-workers do?
26. How likely are you to get the COVID-19 vaccine if your members of management do?
27. What is the one thing that influences your opinion about the COVID-19 vaccine (Negative or Positive)?

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Day Care Centers for Alzheimer's Patients in Türkiye: Demographic Change and Care Ethics, Political and Economic Implications

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ABSTRACT

Advancements in healthcare have extended life expectancy, accelerating the global shift towards aging populations and creating a growing need for comprehensive geriatric care. Among the most pressing challenges is dementia, with Alzheimer's disease (AD) standing as a significant societal and policy concern. AD is a progressive neurodegenerative disorder characterized by the irreversible decline of cognitive functions, including memory, reasoning, and problem-solving, leading to a loss of independence. Its onset, influenced by genetic, environmental, and lifestyle factors, poses profound socio-economic and emotional challenges for patients and caregivers alike. Current healthcare and social support systems often fall short in addressing the complex needs of individuals with Alzheimer's and their families, highlighting critical gaps in policy and service provision. Family caregivers bear the dual burden of emotional distress and financial strain, with limited access to adequate support. Expanding specialized services, such as daycare centers, staffed by multidisciplinary professionals, including gerontologists, psychologists, physiotherapists, and social workers, provides a sustainable solution. These centers not only enhance the quality of life for patients but also alleviate the socio-economic pressures on families and the state. Addressing Alzheimer's care within the broader context of demographic transformation requires an integrated approach, combining public awareness, early diagnosis initiatives, and robust policy reform. Investments in community-based care infrastructure and caregiver support are vital to fostering fair and inclusive outcomes in aging societies. This transformation must be prioritized to mitigate the marginalization of older adults and ensure societal resilience in the face of aging population trends..

KEYWORDS: Dementia; Alzheimer's; Older People; Daycare.

KEY PRACTITIONER MESSAGE

1. Establishing Alzheimer's Daycare centers that offer multidisciplinary services involving healthcare professionals in every neighborhood can significantly alleviate the burden on families while providing a supportive environment for patients.
2. Counseling and psycho-social support for families of Alzheimer's patients is important for managing caregivers' feelings of loneliness, helplessness, and guilt, fostering a community of shared experiences and solidarity.
3. Advocating and raising awareness of responsibility for the needs of Alzheimer's patients within Daycare services who may be unable to articulate their requirements is important for a dignified care process.
4. Strategies and services for Alzheimer's patients and families should be accessible to all families, regardless of income. For this aim, the existing care allowance system needs to be reviewed to better support the specific needs of Alzheimer's patients and their families.

INTRODUCTION

Advancements in healthcare have made increasing life expectancy an unstoppable phenomenon. This extended life expectancy has resulted in a longer aging period, bringing various challenges. However, policymakers and service providers focused on geriatric care have yet to address societal aging adequately. Millions of individuals and families are struggling with the issues brought on by the aging process (Shibusawa, 2024). As life expectancy continues to rise, concerns about the quality of life, resource distribution, and social care for older individuals are growing.

The older population is notably heterogeneous, encompassing diverse needs, expectations, and challenges shaped by varying health conditions, socio-economic statuses, and life-styles. While early death was once a dominant societal concern, advancements in healthcare and living standards have shifted attention toward managing the implications of prolonged aging.

Today, the aging period can extend to five decades, with many individuals leading active lives well into their later years (Gorres & Nachtmann, 2010). Scientific evidence suggests that humans may potentially live up to 125 years, and the number of centenarians is steadily increasing worldwide (Rott, 2004). By 2050, the global centenarian population is projected to exceed 3.7 million, reflecting the unprecedented longevity trends in human history (United Nations, 2022).

While these advancements highlight human resilience, they also underscore the need for re-thinking healthcare systems, pension schemes, and social support structures to accommodate a longer aging phase. For societies to adapt effectively, an initiative-taking focus on healthy aging policies, emphasizing preventive healthcare, technological integration, and community-based support systems, is essential (World Health Organization, 2021). The demographic shifts observed globally are mirrored in Türkiye, where rapid social and economic changes have significantly influenced population dynamics. This transition has placed aging at the forefront of national policy discussions, highlighting the urgency of addressing the unique challenges and opportunities it presents. As Türkiye's population matures, balancing the demands of an aging society with sustainable development becomes imperative. These trends underscore the inter-connectedness of global and local approaches to aging, emphasizing the need for context-specific solutions.

Türkiye's population reached 83.154.997 by the end of 2019 (Turkish Statistical Institute, 2020). Fertility and mortality rates have declined, but the older population continues to grow. In the 1960s, the average Turkish woman had six children, reflecting high fertility rates typical of developing countries

(Tufan, 2007). By 2023, the fertility rate had dropped below replacement levels (2.1 children per woman), resulting in slower population growth and an aging demographic structure (Turkish Statistical Institute, 2023). The extent of a society's aging can be measured by indicators such as median age. Between 2007 and 2019, Türkiye's median age rose from 32.4 to 33.5, with the median age for men increasing from 31.7 to 32.8 and for women from 33.1 to 34.2 (Turkish Statistical Institute, 2023). Barring radical changes in demographic indicators due to natural disasters, war, or migration, the aging trend is expected to continue. From 2013 to 2023, the proportion of people aged sixty-five and above consistently rose, from 7.7% in 2013 to 10.2% in 2023 (Turkish Statistical Institute, 2023). Notably, within this age group, women outnumber men, primarily due to women's longer average life expectancy (Niederfranke, 1999; Turkish Statistical Institute, 2023). Currently, 10.2% of Türkiye's population, approximately nine million individuals, are aged sixty-five and older, officially classifying the country as a "very old" society by international standards (Turkish Republic Family and Social Policy Ministry, 2018). Projections show that by 2030, the older population will constitute 12.9% of the total population, driven by increased life expectancy and lower fertility rates. The aging trend is most pronounced among those aged eighty and above, a group whose numbers have grown by 266% since 1960 (Tufan, 2007). Thus, demographic aging is approaching like a "tsunami" (Tufan, 2007, p. 23).

The demographic transformation is driven by improvements in healthcare, reduced mortality, and increased longevity. However, these changes pose challenges to Türkiye's social, healthcare, and economic systems, especially as the older population often requires long-term care and specialized services (Canning & Lubet, 2023). One of the most significant challenges of old age is the growing need for long-term care (Tufan, 2007). The expected rise in long-term care expenditures due to the aging population poses significant societal challenges. Recent studies emphasize that the increasing economic burden may worsen social inequalities and intergenerational conflicts. These disparities are further complicated by a lack of universal policies tailored to support long-term care needs. For instance, the global caregiver shortage, highlighted in 2023 analyses, underscores the urgent need for innovative solutions, including better workforce incentives and technological aids to support caregiving systems. As studies on geriatric care increase, it is expected that long-term care expenditures will also rise. This trend suggests funding long-term care may intensify social inequality and create generational friction. As a result, older people may increasingly be marginalized in society, and the political system may face added pressure. Dementia-related illnesses,

particularly prevalent in old age, are among the most critical issues affecting the quality of life for patients and their families. In particular, older individuals with Alzheimer's disease present a growing challenge for society, which has yet to find a concrete solution to address this condition. The policy landscape lacks awareness of the actual number of Alzheimer's patients among us and the hardships their families endure (Tufan, 2016b).

Among aging-related health concerns, dementia and Alzheimer's disease significantly affect patients and caregivers. Studies reveal a growing prevalence of dementia worldwide, with Alzheimer's accounting for 60-70% of cases. However, despite its impact, adequate resources and policies are still lacking to support patients effectively and their families (World Health Organization, 2023). Alzheimer's disease is a chronic neurodegenerative disorder that results in total cognitive impairment and functional decline. Family members are the most usual caregivers worldwide, resulting in an increasing total burden and a subsequent degradation of their quality of life (Ibrahim et al., 2024).

One of the critical consequences of population aging is the rising prevalence of age-related illnesses, particularly Alzheimer's disease. Dementia-related conditions, including Alzheimer's, are significant contributors to disability among older adults globally, and Türkiye is no exception. Alzheimer's disease prevalence is intricately linked to age, with significant increases seen among those aged seventy-five and older. Older adults represent a population in critical need of education, targeted prevention, early intervention, and increased workforce capacity on many levels. Yet we do not have a coordinated and comprehensive system of care that addresses the mental health needs of older adults (Miller et.a., 2024).

Recent estimates suggest that Türkiye's older population includes over one million individuals living with Alzheimer's disease, with numbers expected to rise in parallel with the growing older demographic (World Health Organization, 2023). The lack of national policies addressing the needs of dementia patients and their caregivers further worsens the issue (World Health Organization, 2023).

Alzheimer's Disease

Alzheimer's Disease (AD) is a progressive and irreversible brain disorder that affects the central nervous system, leading to a gradual decline in cognitive functions. Primarily affecting older individuals, AD is classified as a neurodegenerative condition that results in diminished cognitive abilities, including memory loss, reduced reasoning and problem-solving skills, and other cognitive impairments that affect daily life activities (Alzheimer's Association, 2022).

The pathology of Alzheimer's is characterized by

the accumulation of amyloid-beta plaques and neurofibrillary tangles composed of tau protein within the brain. These protein build-ups disrupt neuronal communication, ultimately causing neuron death and brain atrophy, thereby driving the disease's progression (Scheltens et al., 2021).

Alzheimer's Disease (AD) is not caused by aging itself but is influenced by genetic factors, with the APOE ε4 allele being particularly associated with a higher risk of the disease. Environmental factors and lifestyle choices are also significant in its development (Barnes & Yaffe, 2011). Typical symptoms initially include memory loss, which may lead to speech difficulties, decision-making issues, and personality changes. In advanced stages, individuals may struggle to perform daily activities independently (Kessler & Kalbe, 2001).

Alzheimer's is not a modern phenomenon; it has historical references dating back over 4.500 years. Beauvoir (1977) highlights a passage from ancient Egyptian texts describing the mental and physical decline associated with old age (Beauvoir, 1977). Alzheimer's is classified as a neurodegenerative disorder marked by cortical dysfunction, which results in tissue atrophy and extensive neuron loss. Between 1991 and 2001, over 20.000 scientific studies on Alzheimer's were published, and the publication rate continues to increase by approximately 10% each year (Forstl et al., 2001).

The historical understanding of Alzheimer's provides valuable context for its modern characterization as a multifaceted and complex condition. While its prevalence increases with age, contemporary studies challenge the notion of Alzheimer's as an inevitable aspect of aging. Instead, they underscore the intricate interplay of genetic, environmental, and lifestyle factors contributing to its onset and progression. This evolving perspective has paved the way for a more nuanced understanding of Alzheimer's, shaping both clinical approaches and societal attitudes toward the disease. In this scope, the concept of the "demented geriatric patient" is often found in the literature, which suggests that Alzheimer's, while prevalent in older adults, is not exclusive to aging itself. Modern research emphasizes that AD is not simply a disease of old age but a complex condition influenced by numerous factors that differ significantly among individuals (Lenzen-Großimlinghaus & Steinhagen-Thiessen, 2000).

Globally, Alzheimer's affects over fifty million people, with this number expected to rise as projected by the World Health Organization (World Health Organization, 2022). İt is most commonly diagnosed in those aged sixty-five and older and is more prevalent among women. The disease's progression correlates with age, affecting approximately 5-11% of individuals over sixty-five and up to 50% of those over 85 (Alzheimer Vakfi, 2022). According to the

International Alzheimer's Federation's 2012 report, global cases are projected to increase from 46.8 million in 2012 to 131.5 million by 2050 (Say Sahin, 2019). The OECD estimates that by 2050, over one hundred million people will face the economic and social impacts of chronic brain diseases like Alzheimer's, which is becoming a significant public health issue worldwide (OECD, 2017).

The first stages of Alzheimer's often go unaddressed by families due to the "strategic" coping behaviors of older people, which may mask the severity of the disease. This often leads to significant caregiving challenges as the disease progresses and the need for constant care intensifies.

Alzheimer Patients' Care and Its Socioeconomic Impacts

The increasing prevalence of Alzheimer's disease, closely tied to demographic changes, underscores the rising demands of caregiving as life expectancy increases. Advances in modern medicine and pharmaceuticals have extended the lives of individuals with serious health conditions, including Alzheimer's, often resulting in prolonged end-of-life care needs (Tufan, 2015, 2019). Families, traditionally the primary caregivers for Alzheimer patients, are facing an increasing burden due to several social dynamics, such as urban migration for work, which weakens family ties, later marriage ages, and higher divorce rates, all of which reduce family caregiving capacity and support networks (Mayer & Baltes, 1996; Schneekloth, 1996).

The immediate family, such as a spouse, daughter, or daughter-in-law, typically provides care for Alzheimer's patients (Schneekloth et al., 1996). In the disease's initial stages, patients often adopt coping strategies that mask their condition, such as minimizing their symptoms, compensating with other skills, or avoiding social interactions. These strategies may delay family acknowledgment of the disease's severity, complicating the provision of effective care as the disease progresses (Schwerdt & Tschainer, 2002).

The increasing prevalence of Alzheimer's disease, driven by demographic aging, highlights the growing demands of caregiving in an era of extended life expectancy. Advances in modern medicine and pharmaceuticals have not only prolonged the lives of individuals with serious conditions like Alzheimer's but also extended the duration of caregiving, especially in the disease's advanced stages (Tufan, 2015, 2019). This phenomenon places significant pressure on families, who are traditionally the primary caregivers.

Bayram and Altinbas-Akkas (2023) conducted a study to evaluate the validity and reliability of the TR-RAWS-LTC measurement in assessing wandering behaviors in individuals with dementia within Turkish culture. The findings of the study suggest that, due to the

complex effects of dementia on cognitive functions, individuals' wandering behaviors may fluctuate over time. Additionally, Bayram and Altinbas-Akkas (2023) highlight that disorders such as restless legs syndrome are significant symptoms seen in the later stages of Alzheimer's disease. Beyond individual factors, the social context also plays a crucial role in Alzheimer's disease. Societal transformations have eroded intergenerational family bonds and caregiving capabilities, driven by factors such as urban migration for employment, delayed marriage, rising divorce rates, and declining birth rates (Mayer & Baltes, 1996; Schneekloth, 1996; World Health Organization, 2021). In the initial stages of Alzheimer's, patients often employ coping strategies, such as minimizing or concealing symptoms, which can delay family acknowledgment of the disease's progression. This delay complicates the prompt implementation of effective care strategies as the disease advances (Schwerdt & Tschainer, 2002).

Given the complexity of Alzheimer's care, Rubenstein, Siu, and Wieland (1989) emphasize the need for a multidimensional approach that integrates medical, functional, psycho-social, and environmental support. This comprehensive care model is crucial for addressing the prolonged and multifaceted needs of dementia patients (Forstl et al., 2001). Despite these recommendations, national healthcare systems continue to face significant financial and structural challenges. For example, Germany distributed approximately €12.5 billion annually for dementia care in 2001, with total costs—including indirect expenses—reaching €25 billion (Ozbabalik & Hussein, 2017). In the U.S., Alzheimer's and other dementias are projected to cost $1.1 trillion by 2050, factoring in both healthcare expenses and unpaid family caregiving (Alzheimer's Association, 2023).

Since the concept of day care is not yet fully recognized in Türkiye, it has not become widespread as a preferred service in social care services (Oglak, 2010). For the first time in Türkiye, the regulation on "Day Care and Home Care Services to be Provided at Older People Service Centers" was enacted on August 7, 2008, by being published in the Official Gazette No. 26960. This regulation introduced the opening of day care centers for older adults who prefer not to stay in nursing homes and included provisions for related units and personnel. Under this regulation, the Ministry of Family, Labor, and Social Services, along with other public institutions and private legal entities, were authorized to open day care centers for the older people. The first example in Türkiye was the "Alzheimer's Day Care Center," opened in Nazilli, Aydin Province, under the leadership of Prof. Dr. İsmail Tufan (Tufan, 2016a).

Furthermore, in response to the increasing demand for care in the country, and as a solution model for family members and older adults

who do not prefer nursing homes, the "Day Care Center Employment Project for Social Care Activity Staff" was initiated in 2009 by the Izmir Governor's Provincial Social Assistance and Solidarity Foundation, supported by the European Union. In recent years, particularly in municipalities of the Aegean, Mediterranean, and Marmara regions (Antalya, Ankara, Izmir, Bursa, Eskisehir, Mersin), although not fully termed as day care centers, services such as "healthy aging and solidarity centers," "older adults' homes," and "older adults' centers" have been observed to provide day care services. Additionally, there are several day care centers that have been opened by the Ministry of Family, Labor, and Social Services and the Alzheimer's Foundation (Oglak, 2018).

The Ministry of Family and Social Services, taking into account the aging data of our country, prioritizes the implementation of various services in collaboration with local governments, NGOs, and legal entities. In this framework, to provide day care services for older individuals, a total of 30 Older People Day Care Centers, 3 of which are independent and 27 are affiliated with institutions, have been established under the Ministry. Additionally, there are 161 older day care centers actively operating, including 127 under municipal authorities and 3 under civil society organizations (Ministry of Family and Social Services, 2024).

Another recent important concept is the Antalya Metropolitan Municipality Blue House [Mavi Ev] model. The "Mavi Ev – Alzheimer Patient and Caregiver Meeting Center," opened in collaboration with the Antalya Metropolitan Municipality and the National Association of Social Applied Gerontology, began operations in January 2016. The institution was selected as one of the most original social projects in the "Cities Competing with the World – Local Governments Competition." This institution also won first place in the "Good Governance Projects" category at the "Effective Municipality Project Competition," organized by the Local Administrations Research and Development Center that year. At Blue House [Mavi Ev], older individuals engage in activities led by specialists, which not only provide enjoyment but also refresh their minds. The center which is one of the most significant Alzheimer's centers not only in Türkiye but also in Europe, stands out as an important initiative that can alter the course of Alzheimer's and dementia diseases related to aging. It embraces patients and their families fighting diseases associated with aging, provides daily transport services for patients, who are picked up from their homes in the morning and brought back in the evening. After conducting blood pressure, sugar measurements, and medication follow-ups, patients participate in brain exercises led by experts. Walking in the large garden helps maintain the functionality

of the muscle system and keeps body muscles fit. Through musical activities, the lost sense of orientation of patients is revived (Akdeniz University Gerontology Department, 2022).

To mitigate these challenges, sustainable strategies are needed, such as expanding formal care infrastructure, increasing caregiver training programs, and adopting community-based support systems. Additionally, public policies should emphasize preventive measures, early diagnosis, and integrated care networks to balance the growing demands of caregiving with limited resources (Christensen et al., 2022; World Health Organization, 2021).

Daycare Centers for Alzheimer's Patients and Their Families

The environment had a significant impact on managing the challenging behaviors that can arise with Alzheimer's disease (Pamuk, 2015). In this respect, daycare centers may also offer an important opportunity. Opening daycare centers is recommended as an initiative to ease the burden on Alzheimer's patients, their families, and the state. By distributing the load of care, Day-care centers would make it more manageable.

At an Alzheimer's Patient and Family Daycare Center, services should be provided by a multi-disciplinary team composed of a gerontologist, nurse, social worker, physiotherapist, psychologist, occupational therapist, and older care technician. A gerontological evaluation of patients diagnosed with dementia should be conducted in healthcare institutions, and a daily program that will enable the patient to adapt to the institution should be prepared. Alzheimer's patients could be picked up from their homes by a service vehicle in the morning and returned to their homes in the afternoon.

In Alzheimer's Patient and Family Daycare Centers, service planning is conducted with the quality of life of both patients and their family members in mind.

Services planned for Alzheimer's patients: Ensuring the safety of the patients by preventing risky situations that may arise if the Alzheimer's patient is left alone at home; providing cognitive and social support to the patients through various activities; slowing the progression of the disease; supporting the patients' daily activities; reducing behavioral problems; and delaying or preventing the transition to long-term full-time institutional care (Ozbabalik & Hussein, 2017).

Services planned for family members of Alzheimer's patients: Enabling caregivers or family members to receive consultation services on Alzheimer's disease and care; sharing the care-giving burden of families with Alzheimer's patients; reducing feelings of loneliness, helplessness, and guilt that families may experience; providing psycho-social support to the family; and creating opportunities for caregivers to meet, offering them a chance to build solidarity

In countries with a high incidence of Alzheimer's disease, using Daycare services is a strategy to improve patient care (Gómez-Gallego & Gómez-Gallego, 2021). Daycare services are one of our country's newly developing institutional support services (Korkmaz Yaylagul et al., 2021). With the aging population and the rising costs of health care, the importance of providing institutional support services, such as Daycare, to meet the health, social, and other needs of the older and their families will continue to increase (Korkmaz Yaylagul et al., 2021). Daycare centers are proposed to be set up in every neighborhood, also serving as consultation centers for Alzheimer's patients and their caregiving family members.

CONCLUSION

We need innovative ideas and suggestions to solve the care problems of older individuals with Alzheimer's disease. Solutions should provide a profound improvement in the conditions of the patient, significantly relieve the burden on families, guarantee high-quality care, and support women's employment. In doing so, it should also take into account social developments related to the need for care, especially demographic aging, future issues, and intergenerational relationships. The proposal to set up an Alzheimer's Daycare center in every neighborhood would be a crucial step in this direction. We must take the first step to achieve a larger goal. We should see the long-term care needs in old age as a meaningful test of our society and culture. To overcome this ethical, political, and economic challenge, we must unite as a community to show perhaps the most vulnerable members of our society—older individuals with Alzheimer's disease—that we stand by them. Private nursing homes and care home models are primarily available only to low-income families. At the same time, these institutions do not provide proper care services for Alzheimer's patients. The "care allowance" paid for those in need of care depends on the family's income, so not every family can receive help from this opportunity, and it is believed that the care allowance cannot be a significant factor in the care of Alzheimer's patients. The specific knowledge needed for Alzheimer's patients is not met through the care allowance. Alzheimer's patients are not in a position to express this demand, so we must take responsibility for them and voice this demand on their behalf. This will also add a new dimension to our concept of "respect for the older." Older individuals will face a better life, families will feel relief, the care sector will rethink its goals, and social policy will discover new roles and aims for itself. Neither humans nor society can prevent aging, but with strong policies, we can ensure that both evolve in a controllable direction. Daycare centers for Alzheimer's patients, known

as adult day services (ADS), have become essential in many countries to provide relief to caregivers and keep patients' quality of life. These centers offer structured programs that include cognitive stimulation, social interaction, physical activity, and medical care tailored to the needs of dementia patients (Alzheimer's Association, 2022). As of 2016, 4600 adult day programs served approximately 286.300 older adults throughout the United States (Gaugler et al., 2021). Similar models in Nordic countries emphasize patient autonomy and family involvement, supported by public funding to ensure fair access. Japan, facing a rapidly aging population, has integrated these centers within its long-term care insurance system, reflecting the importance of governmental support for such initiatives (Ikeda et al., 2022). The socioeconomic impact of these centers is multifaceted. They reduce the financial strain on families by offering affordable care alternatives compared to full-time nursing homes. Additionally, they help caregivers maintain employment and mental health by alleviating the intense demands of 24/7 caregiving (Zarit & Zarit, 2015). However, in low-to-middle-income countries (LMICs), limited funding and infrastructure often restrict the availability of Daycare centers. İn these regions, the burden falls heavily on families, worsening socioeconomic inequalities (Prince et al., 2016). Studies suggest that public-private partnerships and community-based models can improve access to such services in resource-limited settings, showing the need for innovative approaches to bridge these (World Health Organization, 2021). In Türkiye, the development of Daycare centers is still in its infancy despite the rapid increase in dementia cases. As part of Türkiye's efforts to improve the quality of life for older individuals, various service models have been implemented by the Ministry of Family and Social Services. Under the Integrated Care Services Model, approximately 140,000 older individuals receive home care services (Ministry of Family and Social Services, 2024). Additionally, through the Older Support Program (YADES), initiated in 2016, a total of 128.491 older individuals in 87.797 households across 35 municipalities have been reached through 61 different projects as of January 2024 (Ministry of Family and Social Services, 2024). These figures highlight the scope and impact of services provided to support Türkiye's aging population and enhance their quality of life. Existing centers are limited in number and often found in urban areas, leaving rural populations underserved. Türkiye could implement a nationwide program modeled after Japan's long-term care insurance system, ensuring public funding and integrating care centers into the healthcare infrastructure to address this gap. Additionally, tax incentives for private sector

investment in Daycare facilities could stimulate their growth. Public awareness campaigns to destigmatize Alzheimer's and training programs for caregivers would complement these efforts, fostering a comprehensive approach to dementia care. By prioritizing accessibility and affordability, Türkiye can better address the needs of Alzheimer's patients and their families, mitigating the socioeconomic challenges posed by an aging population.

Aging should be considered in both individual and societal contexts (Tufan, 2007). Society has common goals and a shared understanding of life, which arises from the unity of people in search of meaning based on these. The aging of individuals affects society, and the aging of society affects individuals. Aging does not mean danger or disaster. İt brings new opportunities that have not been perceived until now.

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The quantitative, qualitative and mixed-method research approaches are welcome from disciplines including but not limited to education, gerontology, geriatrics, nursing, care and hospice, social work, psychology, sociology, biology, anthropology, economics and business administration, engineering, gerontechnology, law, human rights, public policy, architecture, women studies, rehabilitation, and dietetics.

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Lo, C. L., & Su, Z. Y. (2018). Developing multiple evaluation frameworks in an older adults care information system project: A case study of aging country. Journal of Aging and Long-Term Care, 1(1), 34-48. doi:10.5505/jaltc.2017.65375.

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Vision and Mission

The major goal of the Journal of Aging and Long-Term Care (JALTC) is to advance the scholarly contributions that address the theoretical, clinical and practical issues related to aging and long-term care. The JALTC, while making efforts to create care services for older people at the best quality available that are more humane, that pay special attention to people's dignity, aims from the perspective of the whole aging process to discuss Social Care Insurance as a human right, to contribute care for older people to be transformed into an interdisciplinary field, to integrate care services for older people and gerontological concepts and to create more effective collaboration between them, to enhance the quality of care services for older people and the quality of life of caregivers from medical, psychological and sociological perspectives, to highlight the cultural factors in care for older people, to increase the potential of formal and informal care services, to provide wide and reachable gerontological education and training opportunities for caregivers, families and the older people.

Aims and Scope

"National Association of Social and Applied Gerontology (NASAG)"has recently assumed responsibility for the planning and introduction of a new international journal, namely, the Journal of Aging and Long-Term Care (JALTC). With world societies facing rapid increases in their respective older populations, there is a need for new 21st century visions, practices, cultural sensitivities and evidenced-based policies that assist in balancing the tensions between informal and formal longterm care support and services as well as examining topics about aging.

The JALTC is being launched as the official journal of the NASAG. The preceding journal aims to foster new scholarship contributions that address theoretical, clinical and practical issues related to aging and long-term care. It is intended that the JALTC will be the first and foremost a multidisciplinary and interdisciplinary journal seeking to use research to build quality-based public policies for long-term health care for older people.

It is accepted that aging and long-term care is open to a diverse range of interpretations which in turn creates a differential set of implications for research, policy, and practice. As a consequence, the focus of the journal will be to include the full gamut of health, family, and social services that are available in the home and the wider community to assist those older people who have or are losing the capacity to fully care for themselves. The adoption of a broader view of aging and long term care allows for a continuum of care support and service systems that include home base family and nursing care, respite day care centers, hospital and hospice care, residential care, and rehabilitation services. It is also crucial to be aware that life circumstances can change suddenly and dramatically resulting in the need for transitional care arrange ments requiring responsive, available, accessible, affordable and flexible health care service provision.

For further assistance and more detailed information about the JALTC and the publishing process, please do not hesitate to contact Editor-in-Chief of the JALTC via sending an e-mail: editor-in-chief@jaltc.net Editor-in-Chief: Emre SENOL-DURAK

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