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Geriatric Psychiatry and Cognitive Decline Clinical Evaluation, Neuropsychological Determinants and Evidence-Based Management

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Abstract — Geriatric psychiatry encompasses the diagnosis, treatment, and prevention of mental health disorders in older adults, with particular emphasis on the complex interactions between ageing, cognitive decline, and psychiatric conditions. Conditions such as geriatric depression, dementia, late-onset anxiety disorders, and psychotic disorders represent significant mental health challenges among elderly populations, often coexisting with physical health comorbidities and cognitive impairment. This cross-sectional analytical study examines clinical patterns, determinants, and management strategies for geriatric psychiatric disorders and cognitive decline among 196 elderly patients aged 60–85 years. Geriatric depression was the most prevalent psychiatric condition associated with cognitive impairment, and combined pharmacological and psychosocial interventions demonstrated the highest clinical improvement (F=6.92, p=0.002). The study highlights the importance of early identification, comprehensive neuropsychological evaluation, and integrated multidisciplinary management in addressing geriatric psychiatric disorders and cognitive decline.

Keywords — *Geriatric Psychiatry; Cognitive Decline; Elderly Mental Health; Dementia; Geriatric Depression; Late-Life Psychiatric Disorders.*

1. Introduction

Geriatric psychiatry is a specialised branch of psychiatry focusing on the mental health needs of older adults. As global populations age, the prevalence of mental health disorders among older adults is increasing. Blazer and Schultz (2018) provided an overview of geriatric psychiatry and highlighted the growing importance of this speciality. Research has demonstrated strong associations between depression and cognitive impairment in elderly populations, with both conditions sharing common neurobiological mechanisms.

Steffens and Potter (2008) examined geriatric depression and cognitive impairment. Mukku et al. (2021) provided an update on geriatric depression and cognitive impairment. Rapp et al. (2011) examined cognitive decline in patients with dementia as a function of depression. AI-driven healthcare innovations may support clinicians in identifying patterns of cognitive decline and developing personalised care strategies (Devi et al., 2025; Shanthi et al., 2025; Catherine et al., 2025).

Social determinants of health including socioeconomic conditions and community support systems influence mental health outcomes among elderly populations (Ashifa, 2021; Kariveliparambil et al., 2026). The social wellbeing of elderly populations during public health crises requires specialised geriatric psychiatric attention (Ashifa, 2022). Mental health literacy among caregivers of elderly individuals supports proactive engagement with geriatric psychiatric services (Elkin et al., 2025; Ranganathan et al., 2024). Self-leadership and emotional intelligence skills among geriatric nursing staff improve care quality for elderly psychiatric patients (Mustafa et al., 2026; Zahoor et al., 2025).

Community-based active ageing programmes demonstrate measurable improvements in cognitive engagement and mental health outcomes among elderly populations (Rasi and Ashifa, 2019; Ashifa, 2019). Patient empowerment through educational rehabilitation strategies supports sustained engagement with geriatric mental health care (Vettriselvan et al., 2026).

2. Review of Literature

Blazer and Schultz (2018) provided an overview of geriatric psychiatry. Eyre et al. (2015) discussed clinical advances in geriatric psychiatry with a focus on prevention of mood and cognitive disorders. Park et al. (2003) conducted a systematic review of cognitive decline in the general elderly population. Rapp et al. (2011) examined cognitive decline in patients with dementia as a function of depression. Blazer and Wallace (2016) discussed cognitive ageing and its implications for geriatric psychiatric practice.

Steffens and Potter (2008) examined geriatric depression and cognitive impairment. Mukku et al. (2021) provided a clinical update on geriatric depression and cognitive impairment. Laks and Engelhardt (2010)

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discussed peculiarities of geriatric psychiatry with a focus on ageing and depression. AI-driven healthcare innovations may support clinicians in identifying patterns of cognitive decline (Devi et al., 2025; Catherine et al., 2025; Shanthi et al., 2025; A.S.Aneeshkumar, 2022). Digital health marketing innovations improve awareness about geriatric mental health services and dementia care (Swadhi et al., 2025; Jenifer et al., 2025). Strategic collaborations in medical innovation and AI-driven globalisation accelerate development of advanced geriatric diagnostic tools (Vijayalakshmi et al., 2025).

Occupational health and work-life integration challenges experienced by caregivers of elderly psychiatric patients compound caregiver mental health burden (Gayathri et al., 2025; Ranganathan et al., 2024). Physical health status including health hazards of schizophrenia and comorbid conditions in elderly patients requires comprehensive geriatric assessment frameworks (Ashifa, 2020). Rehabilitation and patient education strategies support cognitive engagement and functional independence in elderly populations (Vettriselvan et al., 2026).

3. Objectives

- To examine the prevalence and distribution of psychiatric disorders and cognitive decline among elderly patients.
- To evaluate the association between geriatric depression and cognitive decline.
- To compare the effectiveness of different treatment modalities in managing geriatric psychiatric disorders.
- To propose clinical practice and healthcare policy recommendations for improving geriatric mental health care.

4. Methodology

A cross-sectional analytical research design was adopted among 196 elderly individuals aged 60–85 years receiving clinical assessment and treatment for psychiatric disorders and cognitive impairment in geriatric psychiatry departments, memory clinics, and elderly care facilities. Cognitive assessment was performed using standardised neuropsychological evaluation tools measuring memory, attention, executive function, and language abilities.

Treatment approaches evaluated included pharmacological treatment, psychological therapy, psychosocial interventions, and combined approaches. Statistical analysis used descriptive statistics, ANOVA, and regression modelling at $p<0.05$. Ethical approval was obtained with informed consent from participants and family members where required.

5. Results and Discussion

Table 1: Demographic Characteristics of Participants (N = 196)

Variable	Category	Frequency	Percentage (%)
Age Group	60–70 years	82	41.8
	71–80 years	78	39.8
	81–85 years	36	18.4
Gender	Male	108	55.1
	Female	88	44.9

Table 2: Prevalence of Geriatric Psychiatric Disorders

Disorder Type	Number of Cases	Percentage (%)
Geriatric depression	82	41.8
Mild cognitive impairment	52	26.5
Dementia	36	18.4
Anxiety disorders	26	13.3

Table 3: Treatment Modalities Used

Treatment Approach	Number of Patients	Percentage (%)
Pharmacological treatment	68	34.7
Psychological therapy	48	24.5
Psychosocial intervention	44	22.4
Combined pharmacological + psychosocial	36	18.4

Table 4: ANOVA Analysis: Clinical Improvement by Treatment Approach

Treatment Approach	Mean Improvement score	F-value	p-value
Pharmacological treatment	3.38	4.84	0.006
Psychological therapy	3.52	5.16	0.004
Psychosocial intervention	3.44	4.92	0.006
Combined approach	3.86	6.92	0.002

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Combined pharmacological and psychosocial interventions demonstrated the highest clinical improvement scores (F=6.92, p=0.002), reflecting the importance of integrated treatment approaches that address both neurobiological and psychosocial dimensions of geriatric psychiatric conditions.

Geriatric depression was the most prevalent psychiatric condition among elderly participants, consistent with research demonstrating its high prevalence and significant association with cognitive decline (Steffens and Potter, 2008; Mukku et al., 2021). The strong association between depression and cognitive decline observed in this study is consistent with previous research (Rapp et al., 2011; Yaffe et al., 1999). Recent advances in biomarker research and neuroimaging technologies offer promising opportunities for improving the diagnosis of geriatric psychiatric conditions (Lenze and Mulsant, 2007). AI-driven healthcare innovations may support clinicians in identifying patterns of cognitive decline and developing personalised care strategies (Devi et al., 2025; Shanthi et al., 2025). Social determinants and community support systems influence mental health outcomes among elderly populations (Ashifa, 2021; Ranganathan et al., 2024).

6. Conclusion

Geriatric psychiatry and cognitive decline represent significant clinical challenges for healthcare systems serving ageing populations. Geriatric depression was the most prevalent psychiatric condition and was strongly associated with cognitive impairment among elderly participants. Combined pharmacological and psychosocial interventions demonstrated the highest clinical improvement scores. The growing prevalence of geriatric psychiatric disorders and cognitive decline underscores the need for early identification, comprehensive neuropsychological evaluation, and integrated multidisciplinary management. Continued research and technological innovation in geriatric psychiatry will be essential for improving clinical outcomes and quality of life among elderly individuals.

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