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Prevalence of Depression and Dementia Among Institutionalized Elderly in Kenya: Nairobi County

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Supplementary Materials: Data, Materials [see Index of Supplementary Materials]

Abstract

Objective: The purpose of this investigation was to determine the prevalence of and the link between depression and dementia, and other risk factors among institutionalized elderly in Kenya.

Methods: This research utilized a cross-sectional design. The sample of 194 was selected through simple random sampling. This study used 6-Item Cognitive Impairment test (6-CIT), Geriatric Depression Scale (GDS) and the Cornell Scale for Depression in Dementia (CSDD) to measure the point prevalence of depression and dementia, and a socio-demographic questionnaire to explore the other objectives.

Results: 11% and 37% screened positive for depression and dementia respectively. Identified risk factors for institutionalization were: being single, having an impairment, chronic illness, poor self-rated health, being dependent for basic daily functioning and having little social support. This study observed a positive relationship between depression and dementia (r = .253, df = 186, p < .001). There was a statistically significant relationships between having supportive family and dementia (r = -.181, N = 191, p = .012); and being dependent for basic daily functioning to both depression (r = .191, N = 191, p = .008) and dementia (r = .221, N = 191, p = .002).

Conclusion: Institutionalized elderly had a higher prevalence for depression and dementia. Being married and having higher levels of education were noted to be important protective factors against dementia. Overall study findings indicate that older adult's mental health may be associated with multiple levels of factors including stressors and resources concurrently, which makes it imperative to further examine these relationships methodically.

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Keywords

prevalence, depression, dementia, institutionalized, elderly, risk factors

Aging is a natural, gradual, and irreversible process involving physical, psychological, and social changes that vary greatly among individuals (Stuart-Hamilton, 2012). While some older adults maintain good health and independence, others become frail and dependent, particularly as they face major life transitions such as retirement, loss of loved ones, and chronic illness. Globally, the population of older persons is increasing faster than any other age group, with the United Nations (2020) and World Health Organization projecting that by 2050, one in six people will be over 65 years old. Kenya mirrors this trend, with the elderly population projected to rise from 1.9 million in 2009 to 2.6 million by 2020.

A central dynamic shaping the experience of aging in Kenya is urbanization. Rapid urbanization has significantly reshaped Kenya's traditional family structures and social support systems. Historically, the extended family played a central role in caring for older members, providing both emotional and practical support. However, as younger generations migrate to cities in search of employment, this system is eroding. The pressures of urban living, limited time, and economic demands have led many families to institutionalize their elderly relatives in long-term care facilities, an emerging but culturally sensitive trend. The Kenyan national policy on older persons (Republic of Kenya Ministry of Labour, & Social Security Services, 2014) acknowledges that modernization and shifting values have contributed to weakening traditional care networks, leaving many older people isolated or dependent on institutional care.

Institutionalization, while addressing the practical needs of ailing elderly individuals, carries profound social and psychological implications. Studies highlight that admission into care homes often results from limited family resources, chronic illness, widowhood, or a desire to avoid burdening relatives (Lini et al., 2016). Yet, many elderly residents experience loss of autonomy, identity, privacy, and belonging (Luppa et al., 2010; Hassan et al., 2017). In Kenya, where filial devotion and communal care are deeply embedded cultural norms, placing an elderly person in a home may be viewed as abandonment or failure of family duty. This perception may contribute to the stigma surrounding institutionalization, aging, and mental health.

These cultural dynamics intersect with the rising prevalence of mental health issues among the elderly, notably depression and dementia. Aging naturally brings physiological and cognitive changes, and when coupled with loss, isolation, or chronic illness, the risk of mental disorders increases significantly. Studies by Leal et al. (2014) and Soares (2014) confirm that older adults frequently experience declines in physical, sensory, and cognitive functioning, predisposing them to depression and dementia. However, in many developing countries, including Kenya, symptoms of cognitive decline are often misunderstood as a normal part of aging. George-Carey et al. (2012) note that this is largely due

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to cultural misconceptions: many families attribute dementia-related behaviors to aging, spiritual or moral causes rather than medical conditions. This lack of awareness delays diagnosis and treatment, reinforcing stigma and social exclusion.

Depression, is similarly misunderstood and underreported among the elderly. Studies have shown that depression prevalence among older adults' ranges between 5% and 35%, depending on the population and setting (Hategan et al., 2018). In Africa, Mirkena et al. (2018) found a 41.8% prevalence of depression among older adults in Ethiopia, the majority of whom were women. Similarly, Musyimi et al. (2017) in Kenya identified being female, single, unemployed, and illiterate as key risk factors for depression.

In addition to the psychosocial and cultural dimensions surrounding aging and institutionalization, accessibility to mental health services and the economic status of older persons are critical determinants of their mental well-being. Evidence shows that limited access to affordable and specialized mental health care significantly contributes to the underdiagnosis and undertreatment of conditions such as depression and dementia among the elderly, particularly in low- and middle-income countries (WHO, 2017). In Kenya, mental health services remain relatively scarce and unevenly distributed, with the majority concentrated in urban areas and referral hospitals, leaving rural and institutionalized populations underserved (Ministry of Health, 2021). This lack of access is further compounded by stigma, inadequate screening, and the shortage of trained geriatric mental health professionals.

Economic status also plays a major role in shaping elderly mental health outcomes. Poverty, income insecurity, and dependence on family or social assistance are linked to higher rates of psychological distress, social isolation, and depression (Mirkena et al., 2018). Many older adults in Kenya lack pensions or stable sources of income, especially those in informal sectors, making them more vulnerable to neglect and institutionalization when families cannot afford home-based care. Studies in sub-Saharan Africa have shown that low socioeconomic status correlates with reduced access to healthcare, poorer treatment adherence, and increased exposure to risk factors such as malnutrition and chronic illness (George-Carey et al., 2012; Hategan et al., 2018).

Moreover, socio-demographic factors play a crucial role in shaping mental health outcomes among older adults. Marital status, education, and social support significantly influence the risk of depression and dementia. Being married often provides emotional and social stability that protects against these conditions, while being single, widowed, or divorced increases vulnerability (Hassan et al., 2017; Santiago & Mattos, 2014). Supportive relationships similarly buffer against loneliness and functional decline, both linked to poorer mental health (Jingjing & Wenfang, 2022). Higher education levels have also been associated with greater cognitive resilience, delaying the onset of dementia (Yu et al., 2020; Holmquist et al., 2020). Similarly, engagement in cognitively stimulating activities, such as reading, games, or social interaction, has been linked to improved mental wellbeing and reduced risk of cognitive impairment (Park et al., 2019). In contrast,

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low educational levels, weak social ties, and impaired functioning heighten susceptibility to depression and cognitive impairment (Soares, 2014). Recognizing these influences is essential for developing culturally relevant strategies that promote healthy ageing among institutionalized elderly in Kenya.

In summary, Kenya's sociocultural context, the intersection between aging, urbanization, and mental health creates a complex picture. The erosion of the extended family system and the increasing reliance on institutional care signify a departure from traditional communal caregiving norms. However, this shift has come with emotional and cultural costs. At the same time, prevailing cultural attitudes toward aging, where productivity and independence are highly valued, further marginalizes older people and reinforces the stigma surrounding mental illness. As such, Kenya faces the challenge of balancing modern care systems with cultural values that emphasize dignity, respect, and belonging for older persons. Addressing these challenges will require public education to reduce stigma, policies that strengthen community-based care, and social attitudes that honor the elderly as vital members of society whose well-being reflects the nation's moral and social health.

Justification of the Study

Though the elderly population is one of the fastest growing age groups globally, there remains limited research focusing specifically on institutionalized elderly individuals, especially in Kenya. Existing studies in Africa and Kenya have largely concentrated on broader aspects such as the prevalence of dementia (George-Carey et al., 2012), the occurrence and risk factors of depression (Mirkena et al., 2018), comparative functionality between institutionalized and non-institutionalized elderly (Mugo et al., 2018), the psychological well-being of institutionalized older persons (Kago et al., 2017), and the effectiveness of screening tools for dementia in rural populations (Chen et al., 2010). It is on this background that this investigation sought to establish the prevalence of depression and dementia among institutionalized elderly, to find out the reasons/risk factors associated with elderly institutionalization, and if any relationship exists between the two conditions. These being aspects that have not been researched expansively in Kenya and across Africa, this study's findings will help illuminate on possible interventions and areas of improvement when it comes to the care of the elderly.

Significance and Implications of the Study

Evidently, mental health outcomes among the institutionalized elderly cannot be understood in isolation from broader systemic, cultural and economic contexts. Improving access to geriatric mental health services and addressing the financial vulnerabilities of older persons are essential steps toward reducing the burden of depression and dementia. Integrating mental health into primary care, strengthening social protection programs,

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and enhancing institutional funding could therefore play a transformative role in improving the quality of life and psychological well-being of Kenya's aging population. As such, without accurate data on the burden of depression and dementia among institutionalized elderly people, these conditions risk remaining overlooked, hindering the allocation of adequate resources for elderly care. This study therefore aimed to establish reliable prevalence estimates of depression and dementia among institutionalized older adults in Kenya, contributing to existing literature and guiding future research.

The findings are expected to support early diagnosis and intervention, leading to better health outcomes. By identifying risk factors associated with institutionalization, the study also highlights potential predictors useful in pre-admission assessments and institutional care planning. Additionally, the results provide valuable insights for improving institutional environments, management practices, and staff training. Beyond institutional benefits, the study seeks to raise awareness among families and caregivers, enhancing their capacity to provide informed and empathetic care. Ultimately, the findings have important policy implications, offering evidence that can inform both institutional and national strategies for improving the quality of life and mental health care of Kenya's aging population.

Method

Study Design

A cross-sectional study design was utilized as it made it possible for the researchers to observe and collect information on the exposure status -institutionalization- and its outcomes in a single moment in time through questionnaires and assessment tools. Data was collected among elderly persons aged 65 years and above residing in 4 different institutions for the elderly in Nairobi County.

Sampling

The study settled on four main institutions for the elderly within Nairobi County, Kenya namely: Little Sisters of the Poor (Nyumba ya Wazee) - Ruaraka, Cheshire Home - Kariobangi, Mji wa Huruma - Runda, and Mother Teresa Home - Huruma. The sample size of 194 was drawn from the target population (all four institutions) comprising of about 637 elderly persons. This number was calculated from the formula of computing sample size offered by Bill Godden (2004).

$$SS = \frac{Z^2 \times (p) \times (1 - p)}{C^2}$$

SS = Sample Size.

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Z = Z-Value (e.g. 1.96 for a 95% confidence level).

p = Percentage of population from entire population in decimal.

C = Confidence Interval in decimal (e.g. 0.05)

$$SS = \frac{1.96^2 \times (0.852) \times (1 - 0.852)}{0.05^2} = 193.8$$

Simple random sampling was utilized, with every potential participant in the target population having an equal opportunity of being chosen as a sample member. To obtain the computed sample size of 194, the researchers requested a complete list/database of all members within the institutions. Using MS Excel, the researchers randomly generated a number for each element (residents within the institutions) then used a raffle system to randomly select participants until the needed sample size was attained. The sample size was then correspondingly divided based on the ratio of the eligible population in the four institutions selected.

Eligibility Criteria

Participants aged 65 years and above were eligible for inclusion; those who had spent a minimum of three months within the institution (ample time for the resident to acclimatize to the new setting); and those who consented to the study. The next of kin consented on behalf of participants with severe forms of cognitive impairment. Where a next of kin was absent, the institution's administrator (who has legal rights over the institution and its residents) provided consent. The study excluded subjects with late-stage terminal illness and those attending day-care (non-residents).

Recruitment and Data Collection Procedures

On the data collection day, the researchers briefed the target population on what the study is about, the purpose and objectives of the investigation, and their rights as participants. They were given consent forms to sign, indicating that they understood the terms of their participation. Only those who met the inclusion criteria were allowed to partake.

All the tools chosen for the study were relatively easy to administer and were all researcher administered. Cognitive Impairment Test (CIT) is a 6-item cognition screening tool for dementia that assesses: orientation, recall, registration, and concentration. A score above 10 out of 28 indicates significant cognitive impairment/dementia. 6-CIT takes approximately 5 minutes to administer. Geriatric Depression Scale (GDS) is a tool that has been reliably used to assess depression in older adults. A score above 10 out of 15 is indicative of depression. GDS, 15-item version takes about 5–10 minutes

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to administer. The Cornell Scale for Depression in Dementia was used to screen for depression in respondents shown to have moderate to severe levels of dementia. It is a 19-item scale validated for use in persons with dementia. In this, questions about the patients were asked of the caregivers, which meant that the respondent did not need to be able to answer questions themselves for the tool to be used. Scores above 18 indicate major depressive disorder. The tool takes on average 20 minutes to administer. To collect data on the other study objectives, a 13-item socio-demographic questionnaire was administered. It would take approximately 10 minutes to complete. In total, the whole process took on average 30 to 40 minutes per person. Participants were allowed breaks during the process.

Data Management

After the data collection process, the tools were checked for completeness and assigned identifying codes for confidentiality. The researchers then coded the tool for data entry onto SPSS software pending analysis. The data was stored in both soft and hard copies. Soft copies were protected using special passwords known to the researchers alone, while the hard copies were locked securely in a cabinet only the researchers could access.

Data Analysis and Presentation

The data collected was coded and keyed into the SPSS software Version 23 for analysis. The first task when beginning to analyze the data collected was to run descriptive analyses. This involved creating frequency distribution tables and cross-tabulations. Summary statistics like means and standard deviations were also important descriptive measures used, in understanding the trends and patterns of the data collected.

Inferential statistical analysis allowed the researchers to examine relationships between variables and to draw inferences to the population on the basis of sample data. The study used the Pearson correlation coefficient (r) to measure the association between depression and dementia. The researchers ran both bivariate Pearson correlation coefficient and partial Pearson correlation coefficient. A p-value of .05 with 95% confidence level was used to consider a significant relationship between variables. After running all the analysis, the data was then presented using tables, pie charts and bar graphs.

All the data relevant to this study, that is, the SPSS file containing the raw data, the data dictionary and translation table, and all research materials/tools were made available (see Mwai, 2025).

Ethical Considerations

The study adhered to the ethical principles of informed consent, right to withdrawal, confidentiality, and beneficence. Participants were fully informed of the study's objectives, procedures, and any potential risks before voluntarily consenting to take part.

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They were assured of their right to withdraw from the study at any stage without facing any negative consequences.

To maintain confidentiality, participants' identities and the names of the institutions were coded to ensure anonymity. Data were securely stored in locked cabinets and password-protected computers, accessible only to the researchers and authorized persons.

In line with the principle of beneficence, the study sought to minimize potential emotional distress arising from recalling personal or sensitive experiences. Participants who showed signs of depression or dementia were referred for appropriate treatment and support.

The study was approved by the University of Nairobi/Kenyatta National Hospital Ethics and Research committee (Ref: UoN/KNH-ERC/A/466). The researchers also applied for a research license from National Commission for Science, Technology and Innovation (NACOSTI/P/22/22427) and data collection permits from Nairobi City Council.

Results

Socio-Demographic Characteristics of Participants

Out of the 194 respondents identified for participation in this study, 3 respondents opted out of the process after starting. Of the remaining 191 participants, there were more institutionalized men accounting for 71% (n = 136) compared to women. Majority of the respondents were between the ages of 65–69 accounting for 26.7% (n = 51), fewest being those above the age of 90 (8.4%, n = 16). Many of the respondents had little to no formal education. It was noted that majority of the respondent were either divorced or separated accounting for 31% (n = 59), closely followed by those who were widowed (27%, n = 51). A larger percentage of the respondents (60%) had stayed more than 3 years within the institution and more than half (61%, n = 117) of the study participants had children (See Table 1).

Table 1

Sociodemographic Profile of Respondents

Socio-demographic Characteristic	Category	Frequency	Percent
Gender	Male	136	71.2%
	Female	55	28.8%
	Total	**191**	**100%**
Age	65–69	51	26.7%
	70–74	48	25.1%
	75–79	21	11.0%
	80–84	38	19.9%

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Socio-demographic Characteristic	Category	Frequency	Percent
	85–89	17	8.9%
	Above 90	16	8.4%
	Total	**191**	**100%**
Level of Education	No Formal Education	71	37.2%
	Primary	70	36.6%
	O Level	33	17.3%
	A Level	17	8.9%
	Total	**191**	**100%**
Marital Status	Married	37	19.4%
	Divorced/Separated	59	30.9%
	Widowed	51	26.7%
	Single	44	23.0%
	Total	**191**	**100%**
Length of Stay	3–6 Months	6	3.1%
	6–12 Months	18	9.4%
	1–3 Years	52	27.2%
	Above 3 Years	115	60.2%
	Total	**191**	**100%**
Have Children	No	74	38.7%
	Yes	117	61.3%
	Total	**191**	**100%**

Study Findings

Prevalence of Depression Among Institutionalized Elderly

11% (n = 22) of the respondents were shown to definitely have depression, 37% probably had depression (n = 70) while 52% (n = 99) of the respondents didn't have depression based on their scores. More women (n = 13) than men (n = 9) screened positive for depression. The age range with the highest number of respondents who met the criteria for major depressive disorder was 70-74 years with 11 cases. Respondents who were divorced or separated had the highest prevalence for major depressive disorder with 11 cases, followed by those who were single and widowed with 6 and 5 cases respectively. There was a statistically significant positive relationship between age and depression (r = .151, N = 191, p = .037) which means that higher age is associated with higher rates of depression.

Prevalence of Dementia Among Institutionalized Elderly

37% (n = 71) of the respondents had significant cognitive impairment/dementia, 22% (n = 42) had mild-cognitive impairment while the majority 41% (n = 78) had no signs of cognitive impairment. More males (n = 36) than females (n = 35) had significant cognitive

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impairment. However, more females (n = 20) than males (n = 11) aged 80 years and above had significant cognitive impairment. The age range with the highest number of respondents with significant cognitive impairment was 80–84 years with 17 cases, followed closely by 70–74 years with 16 cases. In addition, respondents who were divorced/separated had the highest number of cases with significant cognitive impairment at 25 cases, followed by those who were widowed (n = 21). The least cases for significant cognitive impairment occurred among the married respondents with 12 cases. There was a statistically significant negative relationship between level of education and dementia (r = -.314, N = 191, p < .001) meaning that respondents with lower levels of education had higher risk for dementia.

Risk Factors Associated With Elderly Institutionalization

The study found that a significant percentage of respondents had a form of impairment (65%). Also 60% of respondents were suffering from a chronic illness; majority (46%) self-rated their health as poor; 51% were dependent for daily functioning to some extent; and 58% lacked any kind of social support from either family or friends. To better understand the type of impairment, 46% of those with a form of impairment had a physical impairment, 43% had visual impairment and 11% had hearing impairment. It was noted that some respondents had more than one form of impairment. As for chronic illnesses, 36% (n = 52) of the respondents diagnosed with a chronic illness had hypertension, 27% (n = 38) had arthritis and 15% (n = 21) had diabetes. 22% (n = 31) of the respondents cited other chronic illnesses, like heart disease, chronic kidney disease, asthma, long standing mental illness, among others. In relation to the extent of dependence, 13% needed assistance with a few tasks, 23% (n = 44) of the dependent respondents needed assistance with half the tasks, while 15% (n = 29) were dependent for all tasks.

Relationship Between Depression and Dementia

A Pearson correlation analysis was carried out to examine the nature of the relationship between depression and dementia among institutionalized elderly while controlling for pre-existing chronic conditions like diabetes, life transitions like death of spouse and nature of family relationships (these factors were considered confounders in this study). Zero order correlations revealed a weak positive relationship between depression and dementia (r = .253, df = 186, p < .001). A bivariate relationship between the two variables (depression and dementia) without controlling for any factors shows an even weaker relationship (r = .235, df = 189, p = .001) which demonstrates that the controlled factors negatively affect the relationship between depression and dementia as shown on Table 2.

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Table 2

Relationship Between Depression and Dementia

Correlations				
Control Variables			**6-CIT**	**GDS/Cornell**
-none-[a]	6-CIT	Correlation	1.000	.235
		Significance (2-tailed)	—	.001
		df	0	189
	GDS/Cornell	Correlation	.235	1.000
		Significance (2-tailed)	.001	—
		df	189	0
	Marital Status	Correlation	.044	-.196
		Significance (2-tailed)	.547	.007
		df	189	189
	Chronic Illness	Correlation	-.106	.161
		Significance (2-tailed)	.143	.026
		df	189	189
	Supportive Family	Correlation	-.181	-.045
		Significance (2-tailed)	.012	.532
		df	189	189
Marital Status & Chronic Illness & Supportive Family	6-CIT	Correlation	1.000	.253
		Significance (2-tailed)	—	.000
		df	0	186
	GDS/Cornell	Correlation	.253	1.000
		Significance (2-tailed)	.000	—
		df	186	0

[a]Cells contain zero-order (Pearson) correlations.

Relationship Between the Risk Factors Associated With Institutionalization, Depression and Dementia

A Pearson correlation analysis was conducted to examine whether there is an association between the various risk factors, in relation to depression and dementia. The results revealed a statistically significant negative relationship between having children and dementia (r = -.179, N = 191, p = .013) which means that those without children had a higher rate for dementia and vice-versa. There is a positive relationship between dependence for functioning and dementia (r = .221, N = 191, p = .002) and dependence for functioning and depression (r = .191, N = 191, p = .008). This shows that respondents who were dependent for functioning also tended to have greater risk for both depression and dementia. There is an inverse association between having supportive family and friends and dementia (r = -.181, N = 191, p = .012) which means that respondents with less

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social support tended to have higher rates of cognitive impairment and vice-versa. The relationships between having impairments (visual or hearing), previous home placement, general health rating and self-rated level of happiness to both dementia and depression were not statistically significant as their p-values were greater than α = .05 (See Table 3).

Table 3

Relationship Between Risk Factors, Depression and Dementia

		6-CIT	GDS/Cornell
Children	Pearson Correlation	-.179*	.018
	Sig. (2-tailed)	.013	.802
	N	191	191
Impairment	Pearson Correlation	.044	-.016
	Sig. (2-tailed)	.545	.824
	N	191	191
Previous Home Placement	Pearson Correlation	.104	-.134
	Sig. (2-tailed)	.152	.065
	N	191	191
Gen. Health Rating	Pearson Correlation	.001	-.045
	Sig. (2-tailed)	.990	.538
	N	191	191
Dependent for Functioning	Pearson Correlation	.221**	.191**
	Sig. (2-tailed)	.002	.008
	N	191	191
Supportive Family	Pearson Correlation	-.181*	-.045
	Sig. (2-tailed)	.012	.532
	N	191	191
Level of Happiness	Pearson Correlation	-.122	.007
	Sig. (2-tailed)	.092	.923
	N	191	191

*$p < .05$. **$p < .01$.

Discussion

Although efforts were made to achieve gender balance during sampling, the study found a higher number of institutionalized men compared to women across all facilities. This trend aligns with findings by Mudege and Ezeh (2009), who observed that men's preoccupation with vocation and limited involvement in household and social activities earlier in life often result in weaker support networks during old age, increasing their vulner-

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ability to institutionalization. Conversely, women tend to build and maintain stronger social networks, enabling them to receive greater emotional support later in life.

Most respondents were between the ages of 65–69, reflecting the lower life expectancy typical of developing countries. According to the 2019 Kenya census, life expectancy stood at 66.5 years for women and 60.6 years for men, reinforcing the demographic pattern observed (Kenya National Bureau of Statistics, 2019). Many respondents reported low levels of education and diminished marital and family support, with a majority being divorced, separated, or widowed, and 61% having children. These findings underscore the weakening of traditional family-based elder care systems and highlight how reduced socio-emotional support contributes to institutional placement among older adults in Kenya.

The study identified an 11% prevalence of major depression among institutionalized elderly, which is within the 5–35% range reported by Soares (2014), depending on severity. When factoring in those showing depressive symptoms, the total prevalence rose to 48%, comparable to findings by Santiago and Mattos (2014), who reported a 48.7% prevalence among institutionalized elderly. Similarly, Frade et al. (2015) found that non-institutionalized elderly had a 74.1% lower likelihood of depression than their institutionalized peers. Runcan (2012) also affirmed the link between institutionalization and depression, noting a 62% prevalence of severe depression among the institutionalized elderly.

This study further revealed that divorced and separated respondents had higher rates of depression than their married counterparts, supporting Frade et al. (2015), who reported similar findings among single and widowed elderly populations. Consistent with Mirkena et al. (2018), women showed higher depression rates than men. Depression increased with advancing age, echoing Leal et al. (2014) who identified age as a significant factor in late-life mental disorders. Collectively, these results affirm that institutionalization, marital dissolution, aging, and gender play pivotal roles in influencing depression among the elderly.

The current study found a 37% prevalence of dementia and 22% prevalence of mild cognitive impairment among institutionalized elderly. This is substantially higher than the population-based findings made by Soares (2014), who reported dementia affecting about 5% of adults aged 65 years and 20% of those aged 80 years and above, and Mubangizi et al. (2020), who observed a 20% prevalence in community settings. The elevated rates in the present study likely reflect the cognitive risks associated with institutionalization. This relationship was corroborated by Lini et al. (2016), who found dementia prevalence of 81.2% among institutionalized elderly, compared to 12.8% among those living at home.

Gender differences were also observed, with slightly more males showing cognitive impairment, although females aged 80 years and above demonstrated a higher prevalence of dementia. This finding corresponds with literature showing that women in advanced

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age groups tend to have higher dementia rates than men (George-Carey et al., 2012; Soares, 2014). Several factors may explain this difference. Biologically, women generally live longer than men, which increases the likelihood of reaching ages associated with higher dementia risk (Soares, 2014). Hormonal changes following menopause, particularly estrogen decline, and sex-specific genetic or vascular risk factors may also contribute (George-Carey et al., 2012). Social and educational factors further play a role. Historically, women in many low-resource settings, including Kenya, have had less access to formal education, increasing vulnerability to cognitive decline (Lini et al., 2016). These findings highlight the need for gender-sensitive interventions that consider both biological and sociocultural determinants of cognitive health among the elderly.

While the present study did not identify a statistically significant relationship between age and dementia overall, regression analysis revealed that increasing age was associated with greater dementia severity, confirming age as a major risk factor (Soares, 2014). Moreover, being divorced, separated, or widowed and having lower education levels were associated with higher dementia scores. This suggests that the emotional and social engagement within marital relationships may offer protective effects against cognitive decline. It also supports the idea that education contributes to cognitive reserve, helping to delay the onset or progression of dementia (Holmquist et al., 2020). These findings underscore that both social and intellectual engagement mitigate dementia risk in later life.

The results also revealed that functional dependence, chronic illness, poor self-rated health, and lack of social support were the most influential predictors of institutional placement among the elderly. A notable proportion of respondents reported chronic illnesses such as hypertension and arthritis, which require ongoing medical management. These findings mirror those of Luppa et al. (2010), who identified poor health, absence of family support, need for assistance in daily tasks, and multiple medications as strong predictors of institutionalization. Similarly, Lini et al. (2016) emphasized that being single, widowed, or divorced and dependent on others for basic activities were key factors leading to institutionalization, a view reinforced by Hajek et al. (2015), who linked institutional placement to spousal death and physical impairment. The current research however, did not find strong evidence supporting previous home placement as a significant predictor of institutionalization. This deviation from existing literature may be attributed to contextual and systemic differences in elder care within Kenya. The cultural norm of family-based elder care in Kenya implies that older adults are typically cared for at home until family or economic strain makes institutionalization inevitable (Mudege & Ezeh, 2009). This abrupt shift may obscure any predictive relationship between previous home placement and institutionalization, unlike in countries with well-established elder-care infrastructure.

A weak positive relationship was found between depression and dementia (r = .253, p < .001), suggesting that depressive symptoms may be early indicators or contributing

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factors in cognitive decline. This aligns with Yu et al. (2020), who identified depression as a significant associated factor for dementia, and Holmquist et al. (2020), who found dementia prevalence rates of 5.5% among depressed individuals versus 2.6% among non-depressed ones. Santiago and Mattos (2014) similarly observed higher rates of depression among those with cognitive impairment. These findings collectively indicate that depression and dementia share overlapping risk factors, reinforcing the need for integrated screening and early intervention.

The study found significant relationships between dementia and social connectedness variables, specifically having children and supportive family or friends. Dependence in daily functioning was also associated with both depression and dementia, consistent with Hassan et al. (2017), who found that institutionalized seniors experienced greater loneliness and cognitive decline, negatively affecting quality of life. Similarly, Santiago and Mattos (2014) identified functional dependency, co-occurring illnesses, and lack of friendships as contributors to depressive symptoms. Likewise, Jingjing and Wenfang (2022) highlighted the role of loneliness, physical impairment, and low social support in exacerbating depression.

However, the present study did not find statistically significant associations between depression and variables such as having children, social support, impairment, or self-rated health. These discrepancies may be attributed to differences in sociocultural context, demographic composition, and methodological approaches across studies. Nevertheless, the overall pattern supports the conclusion that social connectedness, independence in daily activities, and physical health remain essential protective factors against both depression and dementia in older adults.

Study Limitations

Despite the dissimilarities in sociocultural context, variances in the socio-demographic composition of the study population and in methodologies used for analysis, the findings observed in this study were largely supported by other investigations. The main limitation noted in this study was that some of the questions asked to the participants were sensitive or touched on private matters that the participants may have felt uncomfortable sharing. This may have introduced some social desirability bias in the responses provided, which includes both expectations and response biases. Some participants also seemed to require further intervention and treatment. To try offset this limitation, the researchers tried to assure the participants of anonymity and confidentiality which helped reduce their anxiety about providing information. The researchers noted the need to set aside more time for rapport building. Future studies on the same may benefit from putting measures in place to address emerging issues, for instance, availing psychological first aid services

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Conclusion

This study established that institutionalized elderly individuals in Kenya have a higher prevalence of depression and dementia than community-dwelling counterparts, consistent with findings across Africa and beyond (Frade et al., 2015; Mubangizi et al., 2020; Santiago & Mattos, 2014). The established statistical relationship between the two conditions further illustrates how mental and cognitive functioning are mutually important during the aging process (Yu et al., 2020; Holmquist et al., 2020). Key sociodemographic factors such as being married appeared protective against depression through emotional and social support, while higher education likely provided cognitive resilience against dementia (Lini et al., 2016). In contrast, single, widowed, or divorced individuals were more prone to depression, emphasizing the value of social connection in ageing (Frade et al., 2015; Mirkena et al., 2018).

Functional and health-related limitations, including chronic illness and dependence in daily tasks, strongly predicted institutionalization. While this supports prior studies (Luppa et al., 2010; Hajek et al., 2015), the lack of evidence linking previous home care to institutionalization in this study may reflect Kenya's limited access to structured home-based elder care and strong family reliance. Gender differences were also observed where older women, particularly those above 80, showed higher dementia prevalence, potentially due to longer life expectancy, hormonal changes, and social disadvantages (George-Carey et al., 2012; Mudege & Ezeh, 2009).

The findings highlight the need to integrate mental health screening and psychosocial interventions into institutional care. Routine use of tools such as the Cornell Scale for Depression in Dementia, staff training, and programs promoting social interaction and cognitive engagement could enhance well-being. Collaboration among families, caregivers, mental health professionals, and policymakers is vital to create culturally sensitive, sustainable eldercare frameworks.

Future research should adopt longitudinal and comparative approaches to clarify causal links between depression, dementia, and institutionalization, and to explore variations across African contexts. Overall, this study adds meaningful insight to the growing literature on geriatric mental health in Africa. The results show that institutionalized elderly individuals in Kenya bear a substantial burden of depression and dementia influenced by multiple social and health determinants. To mitigate these challenges, there is a need for collaborative, multi-sectoral approaches that blend clinical interventions, family participation, and policy support to ensure dignified and comprehensive care for older persons.

Recommendations

The researchers believe that this study provides a reliable estimate of the prevalence of depression and dementia among institutionalized elderly persons in Kenya, offering

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valuable insights for prevention and intervention strategies hence better outcomes. The findings highlight the need for intensified community awareness and sensitization programs by the government and relevant stakeholders to enhance elderly care and facilitate early detection of depression and dementia. This can be achieved through training healthcare workers in screening, psychological first aid, and appropriate referral, as well as equipping primary healthcare facilities. Furthermore, policies should support family and community initiatives that promote respect, independence, and self-care among older adults, thereby reducing unnecessary institutionalization. The government of Kenya should ensure access to adequate healthcare, nutritious food, and decent housing, alongside progressive social assistance programs such as free health checks, and monthly stipends, while regulating the operation of elderly care institutions.

The study also revealed notable gender differences in the prevalence of depression and dementia, emphasizing the need for gender-sensitive mental health services within institutions. Institutional care should therefore be person-centered, ensuring access to mental and medical services, promoting social inclusion through meaningful engagement, and providing individualized care plans that enhance residents' wellbeing. Additionally, maintaining an appropriate caregiver-to-resident ratio and offering continuous training and incentives to caregivers would improve service delivery and prevent burnout.

This study findings prove that older adult's mental health may be associated with multiple levels of factors including stressors and resources concurrently, which makes it imperative to further examine these relationships methodically. Further research is recommended to replicate these findings in other counties and across Africa, ensuring consistency in methodology and case definitions. Future studies should also examine the complex interplay between physical, social, and environmental factors influencing elderly mental health, explore the observed gender differences in greater depth, and investigate whether preventing or treating depression could reduce the risk of developing dementia.

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Data Availability: For this article, data is freely available (see Mwai, 2025).

Supplementary Materials

All the data relevant to this study, that is, the SPSS file containing the raw data, the data dictionary and translation table, and all research materials/tools were made available (see Mwai, 2025).

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Index of Supplementary Materials

Mwai, J. (2025). *Prevalence of depression and dementia among institutionalized elderly in Kenya* [Data, materials]. OSF. https://osf.io/637t9

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