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Dementia care across the Gulf Cooperation Council: a scoping review to inform care system development in the United Arab Emirates

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Dementia prevalence in the Gulf Cooperation Council (GCC) countries is projected to increase dramatically, yet no systematic synthesis of peer-reviewed evidence on dementia care services in the region exists. This scoping review mapped research on dementia care services and system-level gaps across the six GCC countries to inform policy and planning in the United Arab Emirates. Following the Arksey and O'Malley framework, eight databases were searched for studies published between 2010 and 2025. Twenty studies met the inclusion criteria. The majority did not explicitly describe formal dementia care services, reflecting limited dedicated provision. Family-based care predominates, shaped by cultural norms of filial responsibility. Stigma and normalisation of cognitive decline contribute to delayed help-seeking. Workforce knowledge gaps are widespread, caregiver support remains limited, and access to formal services appears stratified by citizenship status. These findings reveal marked misalignments with the WHO Global Action Plan on Dementia and underscore the need for national strategies and equitable service provision. Clinical Trial Number: Not Applicable

Dementia is a growing global public health challenge, with around 57 million people currently living with the condition¹. This number is projected to rise sharply to 78 million by 2030 and 139 million by 2050 due to increasing life expectancy¹. Although prevalence estimates vary across regions, forecasts for the Middle East indicate a particularly steep increase, with the World Health Organization² projecting a 125 percent increase across the Middle East by 2050. Cumulative 20-year incidence rates are reported at 2.7% in Egypt and Palestine–Israel and 7.5% in Lebanon³. Some countries, including Oman, Saudi Arabia, Kuwait, Iraq, and Jordan, are expected to experience a fivefold increase². Notably, predictions for Qatar and the United Arab Emirates (UAE) are among the highest globally, at 1926 and 1795 percent, respectively^{4,5}. These alarming projections signal the urgency of examining the preparedness of health and social care systems in the region.

Within this regional context, the UAE presents distinctive demographic features that have direct implications for dementia care. The UAE is a federation of seven emirates, located in the Arabian Peninsula and bordering the Persian (Arab) Gulf and the Gulf of Oman, with an estimated total population of 11.2 million in 2024⁶. Only 11.6 percent of the UAE population (1.29 million) were Emirati citizens⁷. In 2017, Emiratis aged 60

years and above constituted 5.1 percent of the citizen population⁸, a proportion projected to rise to 11 percent by 2032 and 19 percent by 2050⁹. Life expectancy is also high, averaging 81.9 years for women and 79.1 years for men¹⁰. Consequently, the number of Emirati citizens living with dementia is forecast to grow dramatically—from 12,447 or 1.01 percent of the Emirati population in 2022^{5,11} to more than 220,000 by 2050⁵. These demographic shifts underscore the magnitude of the dementia care challenge facing the UAE.

Meeting the needs of this growing population requires attention to multiple dimensions of dementia care, including medical treatment, psychosocial support, and day-to-day assistance¹². In the UAE and the wider Arab Gulf region, dementia care is predominantly provided within the family home, where relatives, often assisted by domestic workers, assume primary responsibility¹³. This reliance is supported by findings elsewhere in the region, such as the Kingdom of Saudi Arabia¹⁴ and Qatar¹⁵, where formal long-term care facilities remain scarce with only a limited number of government-owned institutions providing services, primarily to citizens¹⁶. This reliance on family-based care reflects deep cultural and social values of filial piety and responsibility^{13,17}, but it also highlights the vulnerability of current care arrangements in the face of rapidly increasing prevalence rates³.

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Understanding how these cultural norms interact with formal service provision is therefore crucial for anticipating future care demands¹⁶.

Translating the care needs of people living with dementia into actual service provision requires an understanding of the multiple, and often fragmented, care pathways that exist within the UAE¹⁸. The healthcare landscape for older citizens of the UAE spans a continuum that includes early detection and diagnosis within primary care, specialist services, acute and emergency hospital care, and short- and long-term or residential care options¹⁹. For dementia, alongside these formal structures, a significant proportion of care occurs in the community and within homes, delivered by families, domestic workers, and informal networks^{3,11,20}. Support services such as respite care, palliative care, caregiver education programmes, and non-governmental or faith-based initiatives remain unevenly available and largely undocumented^{21,22}. Workforce development and continuing professional education for health and social care staff represent additional but underexplored components of this care landscape²³. These factors underscore the importance of investigating the scope and organisation of dementia care services in the UAE, as the current evidence base does not provide a systematic overview of their range, distribution or quality¹⁸.

While these challenges are particularly salient in the UAE, they are embedded within a broader Arab Gulf governance model that sharply distinguishes between citizens and expatriates, i.e., foreign nationals residing and working in the country, who typically constitute the demographic majority in GCC states^{15,24,25}. Across all six GCC countries, healthcare provision follows a citizen-centric structure in which nationals are entitled to comprehensive, government-financed or heavily subsidised services, while expatriates rely on employer-mandated health insurance schemes with variable coverage. In the UAE, for instance, Emirati citizens receive publicly funded healthcare through federal and emirate-level systems such as Thiqa in Abu Dhabi, whereas expatriates are covered under compulsory employer-provided insurance now mandated nationwide²⁶. Similar structures operate across the region: citizens in Saudi Arabia access care through the Ministry of Health, while private-sector expatriates must enrol in the Cooperative Health Insurance system²⁷, and Qatar provides free care to citizens through Hamad Medical Corporation while requiring employer-sponsored coverage for expatriates under Law No. 22 of 2021²⁸. This stratification reflects a governance model in which social welfare obligations are directed primarily toward citizens, with expatriate coverage tied to employment contracts and residency status^{29,30}. Combined with cross-country differences in infrastructure, referral systems, and investment priorities, these arrangements produce a stratified and fragmented service environment in which access to dementia care depends on citizenship status, employment, location, and financing model^{15,18}. This underscores the need for systematic mapping of what services are available, to whom, and under what conditions.

These structural arrangements have significant implications for dementia care pathways specifically. While mandatory health insurance for expatriates ensures access to acute and general medical services, coverage for specialised, long-term, and community-based dementia services—including memory clinics, structured post-diagnostic support, respite care, and residential care—varies considerably depending on insurance tier, employer contribution, and emirate-level provision. Citizens, by contrast, typically access dementia-related services through government-funded systems that may include referral pathways from primary care to specialist geriatric or psychiatric services, though the extent and consistency of these pathways differ across the GCC. The practical consequence is a two-track system in which citizens and expatriates may encounter fundamentally different care trajectories, even when presenting with the same condition.

Addressing these disparities requires coordinated national policy responses, yet progress across the GCC has been uneven. The WHO Global Action Plan on the Public Health Response to Dementia, adopted in 2017 and extended to 2031 by the Seventy-eighth World Health Assembly³¹, calls on all Member States to develop national dementia strategies encompassing awareness, risk reduction, diagnosis, treatment, care, support, and research. However, as of 2025, only 45 of the WHO's 194 Member States have adopted national dementia plans globally, representing just 23 percent of signatories³². Within the GCC, Qatar remains the only country to have developed a national dementia plan, launched in 2018 in alignment with the Qatar National Health Strategy and structured around the seven action areas of the WHO framework³³. No equivalent stand-alone dementia strategy has been adopted in the UAE, Saudi Arabia, Oman, Kuwait, or Bahrain, underscoring the urgency of evidence-based planning in the region.

To situate the UAE's emerging dementia care landscape within its broader regional setting, this scoping review examines dementia care across the six GCC countries. Although the overarching research project focuses specifically on the UAE, a GCC-wide scope was necessary for two reasons. First, peer-reviewed evidence originating from the UAE remains sparse, and studies from Qatar, Saudi Arabia, and neighbouring states provide essential contextual anchors for interpreting UAE findings. Second, the UAE's dementia care landscape cannot be understood in isolation: it is shaped by governance structures, including citizenship-based entitlement systems, labour migration patterns, and mixed public-private financing models that are shared across the Gulf states, as well as by cultural caregiving norms common to the region. The GCC-wide synthesis, therefore, provides the structural baseline required to interpret dementia care development in the UAE without implying that GCC countries share identical service configurations. The review maps available peer-reviewed evidence, highlights variations in service availability, and identifies critical knowledge and service gaps, with the UAE positioned as a key reference point given its rapidly ageing citizen population and growing visibility in regional dementia policy discussions^{5,34}. While prevention strategies and rehabilitation services are increasingly recognised as components of comprehensive dementia care^{35,36}, the present review focuses specifically on existing care services, pathways, and system-level gaps.

Taken together, the GCC's distinctive dementia care landscape and its citizenship-based stratification of access point to a fundamental evidence gap. While prevalence data, demographic projections, and cultural factors signal an urgent and growing challenge, there remains no comprehensive account of what dementia care services are currently available, how they are distributed across sectors, and what barriers shape their delivery and use. A recent narrative review by Mowafi et al.³⁴ synthesised epidemiological trends, modifiable risk factors, and broad healthcare challenges across 19 countries in the Middle East and North Africa, providing an important regional overview. However, that work did not systematically examine dementia care services, pathways, and distribution. The present review addresses this gap by offering the first scoping review focused specifically on dementia care services and system-level gaps across the six GCC countries. By establishing a systematic baseline of existing services, their distribution, and their alignment with cultural and policy contexts, the review offers essential evidence to inform dementia care planning in the UAE and contributes to understanding dementia care in under-researched global regions. This scoping review aimed to map the extent, nature, and characteristics of peer-reviewed research on dementia care services across the Gulf Cooperation Council (GCC) countries, with a view to informing dementia care policy and planning in the United Arab Emirates (UAE). The review addressed the following questions:

1. What peer-reviewed evidence exists on dementia care services, care pathways, and care settings in the GCC countries?
2. How do sociocultural factors, such as family caregiving norms, stigma, and help-seeking behaviours influence access to dementia care?
3. What service, workforce, and system-level gaps are identified across the included literature?
4. How does the regional evidence align with international dementia care frameworks such as the World Health Organization's (WHO) Global Action Plan³⁷?

Results

Overview of included studies

Twenty studies met the inclusion criteria and were included in the final synthesis. This section presents the findings in accordance with Stage 5 of Arksey and O'Malley's³⁸ framework, collating and summarising evidence on dementia care services, system characteristics, and service gaps across the GCC. Table 1 summarises the characteristics of included articles, including country, study design, setting, primary focus, formal and informal care service types, and identified service gaps. Notably, the majority of studies did not explicitly describe formal or informal dementia care services; this pattern reflects the limited development and documentation of dedicated dementia services across the region and is itself a significant finding of this review.

Geographic distribution of studies

Of the 20 included papers, six were conducted in Saudi Arabia^{39–44}, six in Qatar^{15,23,45–48}, and three in the UAE^{18,49,50}. Three studies focusing on the broader Middle East and North Africa (MENA) region were included, as GCC countries were explicitly represented within them^{20,34,51}, along with one study on the broader Eastern Mediterranean region²⁵ and one GCC-wide analysis⁵².

Two peer-reviewed sources from Bahrain^{53,54} and one from Kuwait⁵⁵ were identified but excluded from the final analysis because their focus was primarily on caregiver burden and/or biomarkers of dementia, with limited relevance to service organisation. Similarly, two studies from Oman^{56,57} were excluded because they focused on cognitive functioning and physical comorbidities among persons living with dementia rather than on care systems. The concentration of research in Saudi Arabia and Qatar, with comparatively limited evidence from the UAE, Oman, Bahrain, and Kuwait, suggests uneven research attention to dementia care across the GCC.

Study designs

Methodological approaches were diverse. Five studies employed cross-sectional survey designs^{15,23,39,41,46}. Five studies conducted qualitative research using iterative thematic analysis^{40,43,47,48} and grounded theory⁴². Two studies employed quantitative research designs using descriptive statistical analysis⁴⁵ and inferential statistical analysis⁴⁹. Four papers were perspective pieces or communication reviews^{18,44,50,51}. The remaining four papers were reviews of the literature^{20,25,34,52}.

Care settings

The care settings described in the included studies varied considerably. Three studies were conducted in primary or tertiary hospitals, including geriatric and psychiatric units^{39,42,43}, one at a memory clinic⁴⁵, and one at healthcare centres⁴¹. One study was based in community pharmacies, examining pharmacists' knowledge of Alzheimer's disease and their counselling and dispensing practices when caring for people with Alzheimer's disease and their caregivers⁴⁹, one at a nursing college⁴⁰, and two in participants' workplaces or homes^{47,48}. Two studies were conducted online, involving healthcare professionals²³ and patients, caregivers, members of the public and staff from a medical facility⁴⁶. The review papers^{20,25,34,52} drew on data from national health datasets, speciality hospitals, or various

community settings. The care setting was not specified in the remaining perspective pieces^{15,18,44,50,51}.

Cultural and social contexts

Cultural and religious norms were identified as significant influences on dementia care practices across the region. Twelve studies described family caregiving as a moral and religious duty, while institutionalisation was frequently associated with stigma or perceived as abandonment^{15,20,23,25,34,40,42,43,47–49,51,52}. Six studies reported religious practices, such as prayer and recitation of the Qur'an integrated into daily caregiving routines^{20,23,25,34,42,43}.

Stigma surrounding dementia and widespread beliefs that cognitive decline is a normal part of ageing were reported in fourteen studies^{15,18,20,23,25,34,39,40,43,46,47,50–52}. These studies documented how such beliefs contributed to delayed help-seeking and under-utilisation of formal services. Four studies specifically noted that cultural misconceptions and negative societal attitudes discouraged early disclosure of symptoms^{18,25,34,44,51}.

Gendered patterns in caregiving were documented in three studies. Kane et al.²⁰ reported that caregivers in the MENA region are overwhelmingly female relatives, while Saati⁴² found that caregiving responsibilities fall disproportionately on women. Shubair⁴⁴ described the impact of continuous home-based care on women's employment and well-being. Beyond these three studies, gendered dimensions of dementia caregiving received limited attention in the included literature.

Integration into healthcare systems

Integration of dementia care into healthcare systems was inconsistent across the GCC. In the UAE and Qatar, some formal services, such as memory clinics and free dementia care facilities, were reported to exist within the public sector^{18,23,41,46,50}. In Qatar, Saudi Arabia, and the UAE, home care services and memory clinics were reported within public systems, though long-term care and specialised centres remained rare^{18,43,44,46}. Private sector contributions, particularly in institutional and geriatric care, were noted in Saudi Arabia and the UAE^{18,44}.

Five studies reported that formal dementia services—where available—are largely restricted to citizens or concentrated in urban areas^{18,23,41,46,50,51}. Javaid et al.^{18,51} observed that dementia services in the UAE are largely embedded within citizen-oriented welfare structures, while expatriate populations rely more heavily on alternative or private care pathways. This pattern of citizen-expatriate stratification in access to care was not systematically examined across the included studies, though Mowafi et al.³⁴ noted that the high proportion of expatriates in Gulf countries complicates healthcare planning and resource allocation.

Overall, seven studies reported that integration of dementia care into primary and secondary healthcare remained limited, with most care occurring outside formal systems^{20,23,25,34,44,50,51}. The absence of clearly defined care pathways, including structured referral processes from primary care to specialist services, was a recurrent concern.

Service and workforce gaps

Across the included studies, several categories of service gaps were identified.

The most frequently reported gap concerned the absence of clearly defined dementia services or formal care pathways. Eleven studies described healthcare environments in which dementia is subsumed under general geriatric, psychiatric, or primary care services, with no dedicated dementia-specific provision^{15,18,20,23,25,34,39,44,46,50,51}. The lack of specialised memory clinics or structured referral routes was specifically noted by Al Awad et al.³⁹ and Al Hamad and Sathian⁴⁶. Earlier regional studies^{25,50} documented similar fragmentation, while more recent evidence^{23,34} reported that inconsistent service provision persists.

Eleven studies reported gaps in workforce capacity and confidence. Quantitative assessments in several studies found low to moderate

Table 1 | Data charting table summarising key details and findings of included sources in accordance with JBI scoping review methodology⁶⁷

Study	Country/ Region	Design	Primary focus	Formal care services	Informal Care Services	Service gaps identified
Al Awad et al. (2024)	Saudi Arabia	Cross-sectional survey	Primary care physicians' attitudes and confidence in dementia care	None explicitly described	None explicitly described	Gaps in physician training and confidence; Suboptimal knowledge scores
Al Hamad et al. (2024)	Qatar	Cross-sectional registry analysis	Demographic, clinical, and lifestyle characteristics of memory clinic patients	Memory clinic (Rumailah Hospital, expanded network)	None explicitly described	Need for customised interventions based on demographic and risk factor differences
Al Hamad & Sathian (2024)	Qatar	Cross-sectional survey	Research priorities for Qatar National Dementia Research Plan	None explicitly described	None explicitly described	Top priorities: Risk reduction; Early treatment impact; Health system capacity; Caregiver support
Aljousef et al. (2024)	Saudi Arabia	Qualitative (focus groups)	Nurses' knowledge and experiences of Alzheimer's disease care	None explicitly described	None explicitly described	Need for dementia care education for healthcare professionals
Y. Alzahrani et al. (2025)	Saudi Arabia	Cross-sectional survey	Healthcare professionals' knowledge and attitudes toward dementia	None explicitly described	None explicitly described	Knowledge gaps among healthcare professionals; Discrepancy between self-assessed and actual knowledge
Alzubaidi et al. (2020)	UAE	Cross-sectional survey	Community pharmacists' knowledge, attitudes, and practices	Community pharmacy services	None explicitly described	Limited pharmacist knowledge; Stigma affecting service utilisation
Daher-Nashif et al. (2021)	Qatar	Qualitative (grounded theory)	Framing of dementia and adults' mental disorders by religious texts, religious scholars, and family caregivers	None explicitly described	Family caregiving; Religious practices	No formal service details provided
Daher-Nashif et al. (2024)	Qatar	Qualitative (thematic analysis)	Religious and cultural influences on caregiving	None explicitly described	Religious practices integrated in caregiving	No formal service details provided
Dhillon & Fazal (2025)	MENA	Literature review	Epidemiology, risk factors, and barriers to optimal Alzheimer's care	None explicitly described	None explicitly described	Knowledge and skill gaps; Limited diagnostic tools; Need for enhanced healthcare infrastructure
Halabi & Zafar (2010)	UAE	Commentary	Overview of elderly care needs and services	None explicitly described	Informal family caregiving	Socioeconomic impacts; Caregiver burden; Need for research and education
Hammad et al. (2024)	Qatar	Mixed methods (survey and interviews)	Policy, planning, and research gaps in dementia care	None explicitly described	Family caregiving	Need for evaluative research; Roles of domestic helpers and nurses unclear
Javaid et al. (2021)	MENA	Communication/perspective article	Sociocultural factors concerning engagement with individuals living with dementia and creating health inequalities	None explicitly described	Family caregiving	Stigma, knowledge gap, language barriers, lack of informal care outside of the hospital environment, and an over-dependence on clinicians for dementia-specific information
Javaid et al. (2025)	UAE	Retrospective quantitative	Factors affecting time to dementia diagnosis	None explicitly described	None explicitly described	Prolonged diagnostic delay (~3 years vs 20 months in high-income countries); Cultural stigma affecting help-seeking; Services primarily available to citizens
Kane et al. (2021)	MENA region	Scoping review	Informal caregiving experiences and burden in dementia care	None explicitly described	Private nurses; Family members; Domestic helpers	Underrepresentation of informal caregivers in research; Limited knowledge among caregivers; Paucity of service users' experiences literature
Mowafi et al. (2025)	MENA region	Literature review	Dementia prevalence, risk factors, and healthcare challenges	None explicitly described	None explicitly described	Healthcare fragmentation; Workforce shortages (neurologists, geriatricians, social workers); Economic burden of informal caregiving
Paul et al. (2023)	Qatar	Cross-sectional survey	Healthcare stakeholders' knowledge and attitudes toward dementia	None explicitly described	None explicitly described	Knowledge gaps; Limited training opportunities; Lack of awareness about recent advances
Saati (2024)	Saudi Arabia	Qualitative (grounded theory)	Family caregiver and nurse experiences and support needs in Alzheimer's care	Home health nursing (private); Free government medication	Family caregiving (siblings, children)	Need for specialised Alzheimer's treatment centres; Need for health education/awareness programs; Need for specialised nursing training; Financial burden; Nursing workforce gaps
Sharif et al. (2024)	Saudi Arabia	Qualitative (thematic analysis)	Nurses' perspectives on caring for people with dementia	None explicitly described	Family caregiving; Religious practices	Limited guidance from health services; Stigma affecting care

Table 1 (continued) | Data charting table summarising key details and findings of included sources in accordance with JBI scoping review methodology⁸⁷

Study	Country/ Region	Design	Primary focus	Formal care services	Informal Care Services	Service gaps identified
Shubair (2023)	Saudi Arabia	Commentary/ Perspective	Gerontological social work policy and practice in dementia care	Planned long-term care facilities; Social care houses (emerging)	Family caregiving	Inadequate formal services; Home-care burden on families; Biomedical model dominance; Social work profession recognition; Lack of gerontological social work education
Yaghmour et al. (2019)	Eastern Mediterranean	Systematic review	Dementia prevalence, culture, assessment tools, and workforce issues	Private care providers	Family caregiving	Limited formal care services; Cultural barriers (stigma, fate attribution); Need for trained personnel; Lack of validated Arabic assessment tools; Dementia care recent addition to curricula

dementia-related knowledge scores among physicians, pharmacists, and nurses^{39–41,46,51}. Al Awad et al.³⁹ documented gaps in physician training and confidence in dementia care. Paul et al.²³ reported that only a minority of healthcare professionals had received recent or structured dementia training. Dhillon and Fazal⁵² described dementia-related content as minimal within undergraduate medical and nursing curricula. Regional reviews noted uncertainty about roles and responsibilities in dementia care across levels of the health system³⁴ and aligned these findings with global reports highlighting limited confidence among primary care professionals in diagnosing and managing dementia⁵⁸.

Eight studies reported unmet caregiver support needs. Caregivers were described as having substantial informational, emotional, and practical needs, yet with limited access to formal supports such as respite services, counselling, structured education, or long-term care planning^{20,25,42–46,50}. Sharif et al.⁴³ and Kane et al.²⁰ reported that caregivers often rely on informal networks or trial-and-error approaches due to limited guidance from health services. Saati⁴² and Shubair⁴⁴ documented the strain that emerges when professional support is inconsistent or unavailable.

Five studies reported system-level gaps related to the visibility and coordination of available services. Paul et al.²³ noted research under-representation that limits capacity for data-driven planning. Javaid et al.¹⁸ reported that information on available services can be incomplete or inaccessible. The absence of national dementia strategies was identified across several studies^{11,15,34}.

Five studies reported shortages of specialised personnel, appropriate clinical tools, and dementia-specific facilities. Javaid et al. (2021) pointed out over-dependence on general practitioners for dementia-specific information. Mowafi et al.³⁴ highlighted shortages of specialised personnel and a lack of culturally appropriate clinical tools. Saati⁴² documented the scarcity of specialised dementia centres. Kane et al.²⁰ and Mowafi et al.³⁴ identified broader quality-of-care concerns related to these shortages.

Summary of findings

The 20 included studies depict a dementia care landscape across the GCC characterised by limited visibility of dedicated services, uneven integration into formal health systems, knowledge gap among healthcare professionals, and substantial unmet needs among family caregivers. Table 1 illustrates that the majority of studies did not explicitly describe formal dementia care services, reflecting the limited development of such services across the region. Workforce preparedness was inconsistent, with low to moderate levels of dementia-specific knowledge and few structured training opportunities documented across eleven studies. Cultural and religious norms sustaining family-based care were reported in twelve studies, while stigma and normalisation of cognitive decline contributing to delayed help-seeking were documented in fourteen studies. Where examined, access to formal services appeared stratified by citizenship status, though this dimension received limited systematic attention. Gendered patterns in caregiving were documented in three studies, with evidence that women bear a disproportionate caregiving burden, though this area remains under-examined in the GCC-focused literature.

Discussion

The service and workforce gaps identified in this scoping review reveal marked misalignments between current practice in the GCC and existing international dementia care frameworks. The WHO Global Action Plan on the Public Health Response to Dementia 2017–2025, extended to 2031³¹ calls for timely diagnosis, integrated care pathways, support for family caregivers, strengthened information systems, and sustained investment in research and workforce development³⁷. The evidence synthesised here suggests that across the GCC, dementia often remains subsumed under general geriatric, psychiatric, or primary care services, with limited

availability of specialised memory clinics, structured referral routes, or long-term care options. This fragmentation contributes to delayed diagnosis, inconsistent follow-up, and variable continuity of care, and contrasts with the integrated dementia care models envisaged in the WHO plan.

A striking pattern emerging from this review is that the majority of included studies did not explicitly describe formal dementia care services. Of the twenty studies synthesised, only four described specific formal service configurations such as memory clinics, community pharmacy services, or institutional care settings. This pattern is itself a significant finding, reflecting the genuine scarcity of dedicated dementia services across the region. This conclusion is supported by studies that explicitly noted the absence of specialised memory clinics and structured care pathways^{39,46}. Alternatively, it may indicate that peer-reviewed research in the GCC has prioritised workforce knowledge assessments and caregiver experiences over systematic documentation of service provision. Either interpretation underscores a fundamental evidence gap: despite growing recognition of dementia as a public health challenge, the region lacks a systematic, peer-reviewed account of what services currently exist, how they are organised, and who can access them. This gap constrains the capacity for data-driven planning and makes it difficult to benchmark GCC provision against international standards or to identify where investment is most needed.

Workforce limitations emerged as a cross-cutting challenge. Quantitative studies reported low to moderate dementia knowledge among physicians, nurses and pharmacists, with relatively few clinicians having received structured dementia training^{39,41,45}. Dementia content in education curricula was reported as minimal, and continuing professional development opportunities were rare^{23,25,34}. These patterns diverge from international competency frameworks that emphasise dementia-specific training, interdisciplinary collaboration, and ongoing skill development as prerequisites for dementia-capable systems⁵⁸. Insufficient workforce preparation also exacerbates other service gaps identified in the review, including inconsistent management of behavioural and psychological symptoms of dementia and limited support for care planning^{18,34}.

These workforce and service gaps can be further contextualised against established international dementia care frameworks that offer structured benchmarks for system development. Several high-income countries have developed comprehensive frameworks that integrate care standards, workforce competencies, and service design principles. Scotland, for instance, has implemented successive national dementia strategies since 2010, underpinned by the Promoting Excellence framework—a tiered workforce development model that specifies the knowledge and skills expected of all health and social care staff supporting people with dementia, from general awareness through to expert practice⁵⁹. England's Dementia Training Standards Framework similarly establishes three tiers of competency: awareness, core skills, and leadership, designed to ensure consistent quality of dementia education and training across the health and social care workforce⁶⁰. Comparable competency frameworks have been adopted in Australia, Singapore, and Canada, reflecting a growing international consensus that dedicated dementia workforce standards are a prerequisite for care quality⁶¹. At the global level, the WHO Global Action Plan identifies workforce development as a cross-cutting priority, while the WHO Blueprint for Dementia Research calls for investment in care and support research, including the development and evaluation of training and service models suited to diverse cultural and economic contexts³⁵. Against these benchmarks, the GCC's current position, characterised by minimal dementia content in professional curricula, few structured training pathways, and no dedicated workforce competency standards, represents a substantial gap that national strategies will need to address as part of broader system development.

The review also highlights considerable unmet needs among family caregivers, who remain the primary providers of dementia care across the region^{20,43}. Caregivers are expected to absorb substantial emotional, practical, and financial burdens in the context of stigma, misconceptions that dementia is a normal part of ageing, and limited availability of respite, counselling, and structured education^{42,44}. Cultural and religious values that frame family care as a moral duty can strengthen commitment to home-based care, but they may simultaneously constrain open discussion of symptoms or the use of institutional care. These findings echo broader MENA-focused work, such as the review by Mowafi et al.³⁴, which documents fragmented care pathways, workforce shortages, and economic pressures on informal caregivers, but the present scoping review adds granularity by foregrounding GCC-specific policy and service contexts.

Notably, prevention and rehabilitation are two components that are increasingly recognised as integral to comprehensive dementia care pathways, but they were largely absent from the reviewed literature. None of the included studies addressed dementia risk reduction strategies or rehabilitation services in substantive detail. This gap mirrors broader global patterns: the WHO Global Action Plan identifies risk reduction as one of its seven action areas, yet implementation has been limited across many Member States³². Similarly, the World Alzheimer Report 2025 highlights rehabilitation as “essential yet often overlooked” in dementia care, noting that very few national dementia plans currently include rehabilitation despite its potential to help people maintain function, independence, and participation across settings and stages of the condition³⁶. The WHO Blueprint for Dementia Research further identifies care and support, including rehabilitation-oriented approaches, as a priority research theme requiring investment, particularly in low- and middle-income countries³⁵. Given the relatively young populations of the GCC countries and the projected demographic shifts over the coming decades, integrating prevention strategies and rehabilitation services into emerging dementia care frameworks represents a significant opportunity. However, doing so will require primary research to understand how these components can be adapted to the cultural, structural, and workforce contexts of the Gulf region.

A particularly consequential finding concerns the pervasive stigma surrounding dementia and the widespread belief that cognitive decline is a normal part of ageing. Fifteen of the 21 included studies documented these phenomena, reporting their contribution to delayed help-seeking and under-utilisation of formal services. The approximately three-year diagnostic delay reported by Javaid et al.¹⁸, which is substantially longer than the 20-month average in high-income countries, illustrates the clinical significance of these socio-cultural barriers. Stigma operates at multiple levels: it discourages families from disclosing symptoms, shapes expectations that cognitive changes require no medical attention, and reinforces reluctance to access institutional care even when it is available. Addressing these barriers will require sustained public awareness initiatives that reframe dementia as a medical condition warranting timely intervention rather than an inevitable consequence of ageing. Such initiatives must be culturally attuned, working within rather than against the cultural and familial values that shape care preferences in the region.

Although only three studies explicitly examined gendered dimensions of caregiving, the available evidence indicates that women bear a disproportionate burden of dementia care responsibilities in the GCC^{20,42,44}. Female relatives were reported as the primary caregivers, with caregiving responsibilities affecting women's employment, well-being, and social participation. These patterns align with global literature documenting the feminisation of unpaid care work^{62,63}, yet the intersection of gender with Gulf-specific factors,

including the role of female domestic workers in care provision and the cultural expectations placed on daughters remains under-examined. Future research should investigate how gender structures access to support services, shapes caregiver strain, and influences care trajectories across the region.

Importantly, the citizen–expatriate stratification that characterises healthcare systems in the GCC introduces further layers of inequity. Across multiple contexts, publicly funded dementia services, where they exist, are largely accessible to citizens, while expatriate residents depend on employer-based health insurance or out-of-pocket payment^{18,20,34,51}. In the absence of national dementia strategies and comprehensive information systems, the visibility of existing services is limited, and data-driven planning is constrained. From a global dementia planning perspective, the GCC faces rapid demographic change and rising dementia prevalence within health systems where dementia has not yet been fully established as a public health and social care priority.

Previous regional reviews have primarily focused on dementia epidemiology, risk factors, and broad healthcare challenges in the wider MENA region. By contrast, this scoping review concentrates on dementia care services, care pathways, and system-level gaps across the GCC countries. It synthesises evidence on specific service configurations (such as memory clinics, home-based care, and institutional settings), the organisation of care within citizen-centric insurance and entitlement systems, and the intersection of socio-cultural norms with formal service use. In doing so, it provides a more detailed, service-oriented account of dementia care in the Gulf and offers a structured baseline against which national initiatives, including those emerging in the UAE, can be designed, evaluated, and adapted.

A key distinction between this review and previous regional analyses lies in focus and methodological scope. The recent review by Mowafi et al.³⁴ synthesised epidemiological burden, risk factors, and broad healthcare challenges across the wider MENA region. However, it did not systematically examine dementia care services, service organisation, care pathways, or entitlement structures that uniquely characterise GCC health systems. By contrast, the present review synthesises peer-reviewed evidence on dementia care services across the six GCC countries, focusing on how care is organised, where it is delivered, and what service and workforce gaps are reported. While it does not map care models in operational detail, it identifies recurring patterns, including the predominance of family-based care, limited formal service provision, knowledge gap among healthcare professionals, and the influence of citizen–expatriate entitlement structures that help situate the UAE within its wider regional context and complement existing regional reviews.

This review has several strengths. It employs a transparent, prospectively registered protocol following an established scoping review framework. It also brings together diverse study designs and settings to provide a comprehensive map of dementia care services and gaps across the GCC. At the same time, several limitations should be acknowledged. First, all stages of screening and data extraction were conducted by a single reviewer due to resource constraints, which may increase the risk of selection bias despite the procedural safeguards implemented to enhance transparency and consistency. Second, the review was limited to English-language publications and to studies published from 2010 onward, which may have excluded relevant local research or policy reports published in Arabic or prior to this date. Third, the heterogeneity and relatively small number of studies limited the depth of comparison across countries and precluded any assessment of intervention effectiveness. Finally, the focus on peer-reviewed literature means that important practice-based innovations documented only in grey literature or local reports, particularly in the UAE, are not captured here. Government reports and organisational publications, which in some GCC countries may contain the most detailed accounts of existing care

pathways, were analysed separately in a companion environmental scan⁶⁴ to maintain methodological consistency and avoid asymmetry in the evidence base across countries.

The findings point to several priority areas for strengthening dementia care in the UAE and the wider GCC. At the policy level, the development of national dementia strategies is essential to provide coherent direction, align with the WHO global action plan, and reduce the fragmentation evident across current provision. Such strategies should articulate clear entitlements for both citizens and expatriate residents, define minimum service packages and establish mechanisms for monitoring access, quality, and outcomes.

Workforce development needs to be accelerated through the integration of dementia-specific content into education curricula, the establishment of competency-based training standards, and the provision of accessible continuing professional development opportunities across disciplines. Training should foreground appropriate biopsychosocial knowledge of dementia and dementia care, management of behavioural and psychological symptoms, communication with stakeholders—including people living with dementia—and awareness of cultural dimensions of care. Given the reliance on expatriate healthcare and care-work staff in many GCC countries⁶⁵, training initiatives should also address language barriers, cultural mediation and the diverse backgrounds of the workforce.

From a system-planning perspective and given their central role in care provision, supporting family caregivers is critical. Policy and service initiatives should prioritise respite services, psychoeducation, peer-support networks, and culturally attuned programmes that acknowledge both the strengths and pressures of family-based care. Enhancing the visibility and coordination of existing services through centralised information platforms, clear referral pathways, and case-management models would also help families navigate care more effectively.

The gaps identified in this review point to several priority areas for future investigation. First, primary empirical research examining how dementia care services operate in practice is needed, particularly in the UAE, where peer-reviewed evidence remains sparse. Such research should document existing care pathways, map referral processes from primary to specialist care, and examine how families navigate between formal and informal services. Second, the experiences of expatriate populations living with dementia and their caregivers warrant dedicated investigation, given the citizen-centric orientation of current service provision and the demographic significance of expatriate communities across the Gulf. Third, intervention research is needed to develop and evaluate culturally adapted programmes addressing the specific barriers identified in this review, including public awareness campaigns to reduce stigma, caregiver education and support interventions, and workforce training initiatives. Fourth, studies examining the gendered dimensions of dementia caregiving would address a notable gap in the current literature, with attention to how gender intersects with employment, migration status, and access to formal support. Finally, health systems research examining the economic dimensions of dementia care, including out-of-pocket expenditure, opportunity costs for family caregivers, and cost-effectiveness of different service configurations, would support more strategic resource allocation as prevalence rises.

This scoping review provides the first systematic synthesis of peer-reviewed evidence on dementia care services across the Gulf Cooperation Council countries. The findings reveal a regional landscape characterised by limited dedicated dementia services, inconsistent workforce preparedness, reliance on family-based care, and marked gaps in caregiver support. Stigma surrounding dementia and beliefs that cognitive decline is a normal part of ageing contribute to delayed help-seeking, while the citizen–expatriate stratification embedded in GCC healthcare systems introduces

additional barriers to equitable access. With dementia prevalence in the UAE and neighbouring Gulf states projected to increase dramatically over the coming decades, the urgency of addressing these gaps cannot be overstated. The evidence synthesised here offers a baseline against which national dementia strategies, workforce development initiatives, and service innovations can be designed and evaluated, contributing to the broader goal of building dementia care systems that are responsive, equitable, and aligned with international frameworks.

Method

Study design and project context

This study presents a scoping review of peer-reviewed literature on dementia care services in the Gulf Cooperation Council (GCC) countries. The review was designed to map the extent, nature, and characteristics of existing research on dementia care services and system-level gaps, with the specific aim of informing dementia care policy and planning in the United Arab Emirates (UAE). The present study is part of a larger research project that aims to enhance dementia care practices in the UAE, and was granted ethical approval by the Dubai Scientific Research Ethics Committee (DSREC) of the Dubai Health Authority (initial approval reference: DSREC-SR-03/2023_06; annual renewal reference: DSREC-SR-05/2024_08; additional site approval reference: DSREC-SR-07/2024_01) and the University of Reading Research Ethics Committee (UREC) at the University of Reading, United Kingdom (approval reference: UREC 23/07).

Methodological framework

This scoping review is guided by Arksey and O'Malley's³⁸ five-stage framework, further refined by Levac et al.⁶⁶, which provides the overarching methodological structure for defining the research question, identifying and selecting studies, charting the data, and collating and synthesising the findings. The Joanna Briggs Institute (JBI) methodological guidance for conducting scoping reviews^{67,68} was applied as an operational tool to enhance rigour in the practical steps of study identification, selection, data charting, and synthesis, supporting the foundational Arksey and O'Malley framework. Consistent with Arksey and O'Malley's emphasis on iteration, inclusion and exclusion criteria were refined as familiarity with the literature increased, with all decisions documented to ensure transparency and minimise bias.

Reporting followed the PRISMA-ScR checklist⁶⁹ to ensure a clear and comprehensive presentation of methods and results. The protocol for the scoping review was prospectively registered on the Open Science Framework (OSF) on 2 July 2025 (registration link: <https://archive.org/details/osf-registrations-t6a2m-v1>).

All stages of the review (searching, screening, full-text review, and data charting) were conducted by a single reviewer due to resource constraints. To mitigate potential bias, eligibility criteria were piloted on an initial sample of records and iteratively refined as familiarity with the literature increased, consistent with Arksey and O'Malley's³⁸ emphasis on iteration. A screening log documenting all inclusion and exclusion decisions with brief justifications was maintained throughout, and borderline cases were discussed with a supervisory team. A structured data extraction template based on JBI guidelines was used to promote consistency and transparency.

Consistent with Arksey and O'Malley's³⁸ framework, which emphasises mapping available evidence rather than assessing methodological quality, and in line with updated JBI guidance stating that critical appraisal is optional when scoping heterogeneous evidence or addressing system-level questions⁶⁷, no formal quality assessment of included studies was conducted.

Search strategy

Eight databases were searched: PubMed, Scopus, PsycINFO, Embase, Web of Science, CINAHL, Google Scholar, and IMEMR. Search terms combined “dementia,” “care,” “services,” “Gulf,” “UAE,” and related synonyms. A multi-step strategy guided the search, beginning with the development of core vocabulary from existing literature, including population terms (“people living with dementia,” “health-care professionals,” “caregivers”), condition terms (“dementia,” “Alzheimer's disease,” “cognitive impairment”), care focus (“care delivery,” “health services,” “nursing care,” “diagnosis delay,” “training”), and contextual/geographical terms (“United Arab Emirates,” “Gulf Cooperation Council,” “Saudi Arabia,” “Oman,” “Kuwait,” “Qatar,” “Bahrain”). These were combined using Boolean operators and tailored to each database. PubMed searches combined MeSH terms and free-text keywords and were limited to publications from 2010 onward. Similar structured search strategies were adapted for other databases, including Scopus and Web of Science (TITLE-ABS-KEY fields), PsycINFO (AB fields), and CINAHL (subject headings such as MH “Dementia +”). IMEMR and Google Scholar required simpler search strings, Boolean adjustments, and manual date screening (2010–present). The complete search strategy for each database is provided in the Supplementary File.

Eligibility criteria and study selection

Studies were included if they: (a) focused on dementia care services in the GCC states, models of care, professional training pathways, cultural or contextual influences, or systemic barriers to providing dementia care; (b) were published in English between 2010 and 2025; and (c) were published in peer-reviewed scientific journals. Studies were excluded if they focused solely on incidence/prevalence, genetic or biomedical mechanisms, or diagnostic test performance. Grey literature (e.g., government reports, policy documents, organisational publications, theses) was excluded from this review. This decision was taken for two reasons. First, the review aimed to provide a reproducible synthesis of peer-reviewed evidence that could serve as a transparent baseline for regional comparison. Second, grey literature sources relevant to the UAE, including government policy documents, regulatory frameworks, and organisational reports were analysed separately in a companion environmental scan study within the overarching research project⁶⁴. As the grey literature was predominantly UAE-specific, its inclusion in a GCC-wide peer-reviewed synthesis would have introduced asymmetry in the evidence base across countries. The environmental scan complements the present review by providing detailed UAE-specific contextual data. Inclusion was limited to studies published from 2010 onward to align with contemporary policy and service contexts.

To maintain a focus on healthcare systems and service delivery, studies with primarily aetiological or pharmacological emphasis were excluded, as were those centred on public awareness, caregiver burden, or similar topics when they made no reference to care delivery. Records dominated by terms such as “beta-amyloid,” “drug trials,” “animal models,” “risk factors,” or “genetic influences” were removed during screening, as these obscured relevant public health content. However, studies addressing public awareness or caregiver burden were retained when they contained substantive information on service delivery, care pathways, or system-level issues.

Technical and indexing limitations varied across databases, with some (e.g., PsycINFO, Web of Science) returning few Gulf-related results due to limited regional indexing, while others (e.g., IMEMR, Google Scholar) produced large volumes of irrelevant biomedical or non-peer-reviewed content requiring extensive manual screening. Database-specific search adaptations and limitations are detailed in the Supplementary File. The final number of included studies was 20.

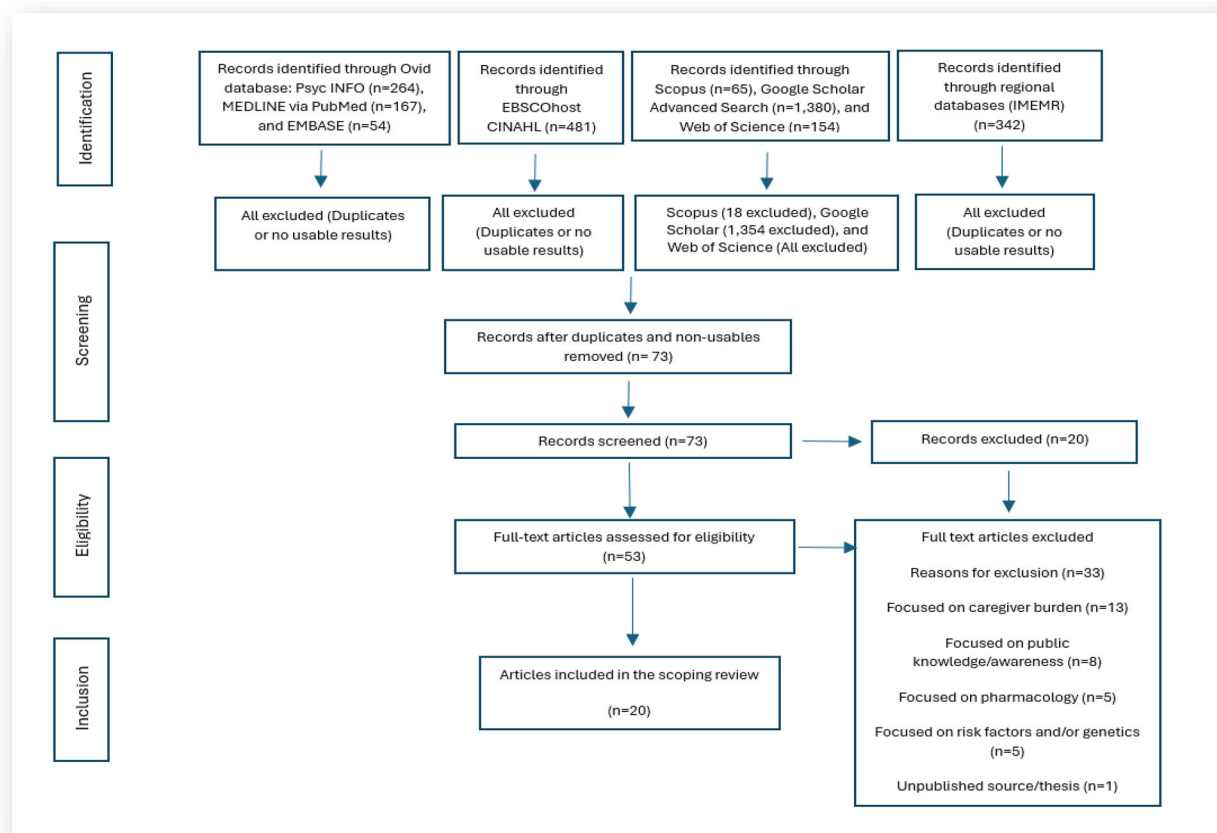


Fig. 1 | PRISMA-ScR flow diagram for the scoping review. Following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) guidelines, the diagram presents four sequential panels: Identification, Screening, Eligibility and Inclusion, showing the flow of records from

initial database searches ($n = 2907$ across seven databases) through deduplication ($n = 73$), screening ($n = 20$ excluded), full-text assessment ($n = 33$ excluded) and final inclusion ($n = 20$). Exclusion reasons at the eligibility stage are listed in the right-hand panel. Arrows indicate the direction of flow between stages.

Figure 1 presents a PRISMA-ScR flow diagram summarising the identification, screening, and inclusion of articles⁶⁹.

Data extraction and synthesis

All search results were imported into Zotero for deduplication and screened using ASReview⁷⁰, with full-text review conducted manually. ASReview is an open-source platform that uses active learning algorithms to prioritise the most relevant records for early review, accelerating title and abstract screening while maintaining transparency and reproducibility⁷¹. To validate the initial ASReview screening process, a subset of titles/abstracts was manually screened by the first author and compared with the ASReview classifications. No major discrepancies were identified between the manual screening and algorithm-assisted decisions. This calibration exercise was conducted at multiple points during the initial screening to ensure that the active learning algorithm was prioritising relevant records appropriately. While this falls short of a full parallel screening by a second independent reviewer, it provided a pragmatic check on the tool's performance within the resource constraints of a single-reviewer study.

Data were extracted using a structured template based on JBI guidelines⁶⁷, capturing study setting, objectives, design, primary focus, healthcare sector, formal and informal care service types, and identified care service gaps. The completed data extraction is presented in Table 1. In keeping with scoping review methodology, the synthesis aimed to map the extent and nature of available evidence rather than assess study quality or effect sizes^{38,66}.

Data availability

All data generated or analysed during this study are included in this published article and its supplementary information file.

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Author contributions

Seada A. Kassie: conceptualisation, methodology, investigation, data curation, writing - original draft, Writing -review & editing, project administration. Arlene A. Astell: supervision, validation, writing - review & editing.

Competing interests

The authors declare no competing interests.

Additional information

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