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Physicians' attitudes and confidence toward dementia care: A cross-sectional study at primary healthcare facilities in the Eastern Province, Saudi Arabia

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Abstract:

BACKGROUND: Primary care physicians play an essential role in the health of older adults as they are frequently the first point of contact. Their positive attitude and knowledge influence the quality of care provided to patients with dementia and their caregivers. This study examined the attitudes of primary care physicians towards dementia care and their confidence in their own dementia-care skills.

MATERIALS AND METHODS: This cross-sectional study was conducted among 316 primary care physicians working in Eastern Province of Saudi Arabia. Data were collected using a structured questionnaire that included questions related to demographic characteristics, Dementia Care Attitude Scale (DCAS) to assess attitudes towards dementia, and Confidence in Dementia Care Skills (CDCS) Scale to measure confidence. Data were analyzed using SPSS version 29; mean and standard deviation (SD) were computed for continuous and categorical variables were described using frequencies and percentages. Mann Whitney U test and Kruskal Wallis test were used to compare attitude and confidence scores by categorical variables.

RESULTS: The mean DCAS score was 36.4 ± 5.41 out of 50. On a scale ranging from 15 to 75, the mean CDCS was 51.89 ± 10.20 . A statistically significant ($P < 0.05$) relation was found between confidence and professional rank, knowing close relatives with dementia, and number of dementia and elderly patients treated. Overall, 78.9% of physicians lacked confidence to prescribe memory medications; 32% felt that dementia management was generally more frustrating than rewarding.

CONCLUSION: Primary care physicians had a positive attitude toward caring for patients with dementia. However, they lacked confidence in their dementia care skills in several areas. The confidence in their diagnostic skills was higher than their management skills. Most challenging skills were recognizing and managing behavioral symptoms of dementia. Need to develop educational and training interventions that target healthcare providers to help improving dementia care in primary care settings.

Keywords:

Alzheimer, attitudes, dementia, diagnosis, primary care, skills

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Introduction

Dementia is an age-related illness and a leading cause of disability and

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dependency in older people. In 2019,^[1] Alzheimer's disease and other kinds of dementia were ranked the seventh highest cause of mortality worldwide. The World Health Organization (WHO) has identified dementia as a public health priority.^[2] In 2020, around 55 million people were living with dementia; this number is expected to rise to 139 million by 2050.^[3] Although Saudi Arabia has a relatively low number of older people (4.2%),^[4] the population is expected to rise astronomically, placing a strain on public and private long-term care institutions.^[5] Unfortunately, very little research has been done on dementia in Saudi Arabia. Furthermore, geriatric specialists are scarce, and the dementia training available to trainees is rare.^[6] The consequence of this is an underdeveloped geriatric service of nursing homes and home healthcare.^[7]

Primary care physicians (PCPs) play an essential role in maintaining the health of older adults in several countries, Saudi Arabia is no exception. Prevention, diagnostic processes, management, and discussions with patients about their diagnoses, all of which PCPs should be involved with, are essential aspects of dementia care.^[8] As PCPs are frequently the first point of contact for family members, it is essential to recognize cognitive impairment and dementia promptly to make early intervention feasible. Several study groups in different countries have examined dementia management and the role of cognitive screening tests in primary care.^[9] In 2017, a meta-analysis of the global frequency and factors associated with cases of dementia undetected by PCPs revealed a high incidence of undiagnosed dementia.^[10] With the development of memory medications, there is growing evidence that early detection and treatment are more beneficial than previously believed.^[11]

Several countries have studied the health-seeking patterns of individuals with dementia. In developing countries, the proportion of patients with dementia and their caregivers seeking treatment at primary care facilities is estimated as ranging between 5% and 45%; the remainder seek help at tertiary hospitals or private clinics.^[12] Saudi Arabia's access to primary care services has improved in recent years. However, although the Saudi Ministry of Health (MOH) has made substantial efforts since 2016 to optimize primary care center work and to strengthen its role in prevention, a significant gap still remains.^[13]

Various barriers to the early detection of cognitive disorders have previously been recognized in primary care. These barriers include, but are not limited to, stigma;^[14] difficulties in distinguishing normal aging from dementia;^[15] and the primary care physicians' lack of confidence or training.^[16] Some studies have shown

that many PCPs encounter obstacles when accessing diagnostic services, such as computed tomography scans and magnetic resonance imaging, particularly in remote or rural regions.^[17] A systematic review of the barriers to dementia diagnosis and management in primary care settings has shown that general practitioners (GPs) worldwide report that training and education on dementia are inadequate.^[18] It has been argued that excellent dementia care depends on personnel with a high level of dementia knowledge and positive attitudes toward dementia patients.^[19,20] In addition to diagnosis and treatment, PCPs should serve as public health educators.^[21] PCPs cannot fulfill their duty as public educators unless they themselves have enough knowledge and confidence in dementia care.

There have been no prior published studies on the attitudes of Saudi Arabian PCPs toward dementia or their levels of self-confidence in managing cases of dementia. An understanding of the nature of skill-based confidence and the attitudes toward dementia care can inform, educate, and strengthen the design of educational and training programs on the approach to dementia and improve the overall dementia care in primary care settings. Similarly, it is crucial to understand what PCPs experience in diagnosing and managing dementia patients or when planning and developing dementia programs.

This study aimed at investigating the attitudes of physicians working in primary care facilities in the Eastern Province of Saudi Arabia. The focus was on dementia care and their confidence in the approach to dementia care skills as well as their attitude toward dementia care using standardized scales.

Multiple factors and other variables that could affect the physician's decision, care, approach, and confidence toward dementia patients have been identified. Their impact on postgraduate training regarding the perception and approach of the physician and their confidence or attitude to dementia care were also addressed. Any personal experience with dementia patients, particularly any elderly relatives diagnosed with dementia that the physician might have could impact on their confidence and attitude to dementia care.

Materials and Methods

This questionnaire-based cross-sectional study involved GPs, family medicine residents, specialists, and consultants working in the Eastern Province of Saudi Arabia. The geographical areas were Dammam, Khobar, Dhahran, Qatif, and Jubail. The Al-Ahsa region was not included in our study. According to the Saudi Arabian MOH Statistical

Yearbook 2021,^[22] the province has 294 GPs and 390 family physicians. Raosoft (Raosoft Inc., Gary Trujillo, WA, USA), an online software, was used to calculate the sample size. To reach a confidence interval of 95%, the minimum sample size required for our study was 247. Participants were selected using sampling between December 2022 and February 2023. Data were collected through an online survey on the Microsoft Forms platform. The participants were asked to answer multiple-choice questions based on scales related to the study target. The sample was obtained from hospitals and primary care centers in the public and private sectors. A total of 316 responses were collected, and all participants' data were analyzed. Ethical approval was obtained from the institutional review board vide letter no. UGS-2022-01-514 dated 28/11/2022, and informed written consent was taken from all participants in the study.

The questionnaire in English was in four sections. The first section elicited demographic data including gender, age, professional ranking, and years of experience. The second section sought information about the number of dementia patients encountered and treated by each physician in the past 6 months, the number of close relatives with dementia, the proportion of patients aged >60 years in each clinic, and the types of memory medications prescribed.

The third section included the Dementia Care Attitude Scale (DCAS) to measure physicians' attitudes to patients with dementia, in line with previous studies.^[7,16] This scale had ten items with responses ranging from 1 (highly negative attitude) to 5 (highly positive attitude) and answers ranging from "strongly agree" to "strongly disagree." For the four negatively phrased items, the scoring was reversed. Overall, the higher the score, the more positive the physician's attitude; total scores ranged between 10 and 50.

The fourth section comprised the 15 item Confidence in Dementia Care Skills (CDCS) scale to assess physicians' skills and level of confidence while treating patients with dementia. Seven questions focused on diagnostic skills related to dementia and eight on management skills. In a previous study that employed this scale, the Cronbach's alpha was 0.947 for 15 items suggesting a good internal consistency.^[7] The scale of 15 items measured responses ranging from "I cannot do it at all" to "I can do it very well" using a five-point scale. Total scores ranged between 15 and 75; the higher the score, the more confident the physician was in treating patients with dementia.

Data were analyzed using SPSS version 29 (IBM Corp., Armonk, NY, USA). Continuous variables were summarized as means \pm standard deviation.

Categorical variables were described using frequencies and percentages. The Kolmogorov–Smirnov test showed asymmetric distribution. Therefore, Kruskal–Wallis test was used to test the association between attitude level and confidence with other categorical variables. Mann–Whitney U test was used to compare attitude and confidence scores between males and females. The level of significance was set at a two-sided $P < 0.05$.

Table 1: Demographic characteristics and work experience of primary care physicians in Eastern Province, Saudi Arabia (n=316)

Characteristics	N (%)
Family physicians GPs in each district	
Dammam	85 (26.9)
Khobar	101 (32.0)
Dhahran	53 (16.8)
Qatif	29 (9.2)
Jubail	30 (9.5)
Others	18 (5.7)
Gender	
Male	126 (39.9)
Female	181 (57.3)
Prefer not to say	9 (2.8)
Knowing a close relative with dementia	
Yes	146 (46.2)
No	170 (53.7)
Type of workplace	
Governmental hospital	74 (23.4)
Private hospital or center	61 (19.3)
Primary care center	178 (56)
Others	3 (1.0)
Work experience (years)	
1–2	142 (44.9)
3–5	71 (22.5)
6–10	59 (18.7)
>10	44 (13.9)
Professional ranking	
Consultant in family medicine	47 (14.9)
Specialist in family medicine	46 (14.6)
GP	134 (42.4)
Resident in training	89 (28.2)
Number of dementia patients treated in the past 6 months	
0	195 (61.7)
1–10	113 (35.8)
11–50	8 (2.5)
Percentage of geriatric patients in the past 6 months	
<25 of all patients	153 (48.4)
25–50	122 (38.6)
>50	41 (13.0)
List of memory medications were prescribed	
Rivastigmine	37 (11.7)
Galantamine	13 (4.1)
Donepezil	28 (8.9)
Memantine	21 (6.6)
Others	3 (0.9)

GP=General physician

Results

Table 1 presents detailed information on demographics and work experience.

In total, 181 (57.3%) of the 316 family physicians and GPs were women; 126 (39.9%) were men, and 9 chose the response "I prefer not to say" on the questionnaire. Most participants (87.3%) were between the ages of 20 and 40 years. In terms of professional status, 134 (42.4%) were GPs, 89 (28.3%) were residents in training, and 93 (29.4%) were specialists or consultants in family medicine. Although the consultants and specialists were both board certified in family medicine, the former had more than 3 years of postcertification experience, whereas the latter had <3-year experience. Only 32.2% (102/316) of the physicians prescribed memory medications. Rivastigmine (36.2%) was the most commonly prescribed medication, followed by donepezil (27.4%), memantine (20.5%), and galantamine (12.7%). One hundred and twenty-one physicians (38.3%) had worked with at least one dementia patient in the previous 6 months.

Table 2 presents PCP attitudes toward dementia, as measured by the DCAS. We considered the answers "strongly agree" and "agree" to be positive attitudes, "neither" to be ambivalent, and "disagree" and "strongly disagree" to be negative. The mean DCAS score was 36.4 ± 5.41 out of 50, with higher scores indicating more positive attitudes. PCPs scored the highest on the following items, which indicated a positive attitude: "it is better to talk to dementia patients in gentle and soft terms," "providing a diagnosis is usually more helpful than harmful," and "families would rather be told about their relative's dementia as soon as possible." In contrast, we observed a negative attitude toward dementia care

in four of the ten questionnaire items; 32% ($n = 103$) felt that dementia management was more frustrating than rewarding. Furthermore, 38.3% of PCPs ($n = 121$) believed that dementia care was a drain on resources with few positive outcomes. Half of the physicians (51.3%) felt that they had a limited role to play in dementia care. In addition, 40.8% did not see the value of referring families to external social services.

The mean CDCS score was 51 ± 10.2 out of 75. Higher scores indicated greater confidence in one's skills. Of the diagnostic skills, PCPs were more confident (66.5% of responders) in performing the Mini-Mental State Examination, clock-drawing test (63.9%), and Geriatric Depression Scale (60.8%). On the other hand, only 32.3% of PCPs were confident in the use of the Neuropsychiatric Inventory Questionnaire (NPI-Q). Of the management skills, PCPs were most confident (67.1% of responders) in providing guidance to caregivers on safety issues for dementia patients. On the other hand, PCPs were least confident in the following areas: medication management for individuals with confirmed dementia (29.1% of responders) and providing guidance on behavioral symptoms of dementia (40.2% of responders). Table 3 shows PCP responses to the CDCS. The responses "I can do it very well" and "I can probably do it" were considered confident. While the response, "I am not sure," is ambivalent, the responses "I cannot do it well" and "I cannot do it at all" were not confident.

Table 4 presents the statistics of one-way analysis of variance (Kruskal-Wallis test), showing the relationship between sociodemographic variables and PCPs' attitudes toward dementia and CDCS. A statistically significant ($P < 0.05$) association was found between attitude and professional rankings. Senior physicians in

Table 2: Primary care physicians' attitudes towards dementia care, Eastern Province, Saudi Arabia ($n=316$)

Items	Negative attitude N (%)	Ambivalent attitude N (%)	Positive attitude N (%)	Mean±SD
Much can be done to improve the quality of life of caregivers of people with dementia	38 (12.0)	28 (8.9)	250 (79.1)	3.9±1.1
Families would rather be told about their relative's dementia as soon as possible	25 (7.9)	35 (11.1)	256 (81.0)	4.0±1.0
Much can be done to improve the quality of life of people with dementia	34 (10.8)	33 (10.4)	249 (78.8)	4.0±1.0
Providing a diagnosis is usually more helpful than harmful	11 (3.5)	34 (10.8)	271 (85.8)	4.1±0.9
Dementia is best diagnosed by specialist services	35 (11.1)	54 (17.1)	227 (71.8)	3.8±1.0
Patients with dementia can be a drain on resources with little positive outcomes	115 (36.4)	80 (25.3)	121 (38.3)	3.0±1.1
It is better to talk to the patient in gentle and soft terms	12 (3.8)	31 (9.8)	273 (86.4)	4.2±0.9
Managing dementia is more often frustrating than rewarding	110 (34.8)	103 (32.6)	103 (32.6)	2.9±1.0
There is little point in referring families to services as they do not want to use them	83 (26.3)	104 (32.9)	129 (40.8)	3.2±1.0
The primary care team has a minimal role in caring for people with dementia	101 (32.0)	53 (16.8)	162 (51.3)	3.3±1.2
Total	316 (100)	316 (100)	316 (100)	36.4±5.4

SD=Standard deviation

Table 3: Primary care physicians' self-confidence in dementia care skills, Eastern Province, Saudi Arabia (n=316)

Items	Not confident N (%)	Neutral N (%)	Confident N (%)	Mean±SD
I can be alert to the possibility of dementia in patients with cognitive impairment symptoms	28 (8.9)	101 (32.0)	187 (59.2)	3.5±0.9
I can use MMSE for cognitive assessment	34 (10.8)	72 (22.8)	210 (66.5)	3.7±1.0
I can use CDT for cognitive assessment	35 (11.1)	79 (25.0)	202 (63.9)	3.7±1.1
I can use the IADL for the activity of daily living assessment	50 (15.8)	100 (31.6)	166 (52.5)	3.4±1.1
I can use NPI-Q for BPSD assessment	87 (27.5)	127 (40.2)	102 (32.3)	3.0±1.0
I can use GDS for depression assessment	47 (14.9)	77 (24.4)	192 (60.8)	3.6±1.0
I can refer the suspected dementia patients to a specialist if necessary	14 (4.4)	52 (16.5)	250 (79.1)	4.0±0.9
I can do drug management for patients with confirmed dementia	102 (32.3)	122 (38.6)	92 (29.1)	2.8±1.1
I can provide nondrug guidance on improving cognitive function for dementia patients, such as cognitive stimulation therapy	74 (23.4)	106 (33.5)	136 (43.0)	3.2±1.1
I can provide guidance on behavioral symptoms for dementia patients, such as music therapy	77 (24.4)	112 (35.4)	127 (40.2)	3.1±1.1
I can provide guidance on improving the ability of daily life for dementia patients, such as the use of telephones	52 (16.5)	101 (32.0)	163 (51.6)	3.4±1.0
I can provide guidance on safety for dementia patients, such as in-home safety, out-home safety, and medication safety	31 (9.8)	73 (23.1)	212 (67.1)	3.7±1.0
I can provide nursing guidance on nutritional support and complication prevention in patients with end-stage dementia	66 (20.9)	114 (36.1)	136 (43.0)	3.2±1.1
I can provide psychological guidance to caregivers	43 (13.6)	86 (27.2)	187 (59.2)	3.6±1.0
I can recommend resources of social support services available to caregivers, such as daycare services and communication platforms for family members of patients with Alzheimer's disease	54 (17.1)	94 (29.7)	168 (53.2)	3.4±1.1
Total	316 (100)	316 (100)	316 (100)	51.3±10.2

MMSE=Mini-Mental State Examination, CDT=Clock-drawing test, IADL=Instrumental Activities of Daily Living Scale, NPI-Q=Neuropsychiatric Inventory Questionnaire, BPSD=Behavioral and psychological symptoms of dementia, GDS=Geriatric Depression Scale, SD=Standard deviation

family medicine (consultants) had a more positive attitude toward dementia than junior physicians (specialists), residents in training, or GPs. We also found that older age, higher professional rank, and more years of experience were all associated with higher total score mean in the DCAS. We found no statistically significant relationship between attitudes and the following variables: gender, knowing a close relative with dementia, the number of dementia patients treated in the previous 6 months, and the proportion of geriatric patients in a practice.

We discovered a statistically significant ($P < 0.05$) relationship between confidence and the following variables: professional ranking, years of practice, having a close relative with dementia, the number of dementia patients treated, and the proportion of geriatric patients in the practice. Higher professional rank, more years of practice, and exposure to geriatric and dementia cases were all linked to a higher total score mean on the CDCS scale. More information is displayed in Table 4.

Discussion

Our results show that the participants had a positive attitude toward dementia, with scores ranging between 10 and 50. Most PCPs believed that much could be done to enhance the quality of life of patients with dementia and their caregivers. However, approximately one-third believed that managing dementia was typically more

frustrating than rewarding. Although these PCPs accepted that treating dementia could benefit patients and their families, they had a negative attitude toward the disease. The progressive nature of dementia is likely to influence PCPs' views and attitudes to both the disease and treatment.^[23] Turner *et al's* study of 124 GPs in Scotland and London produced very similar findings.^[16] One-third of PCPs (33.6%) felt that managing dementia cases was more frustrating than rewarding (33.6%) and that they should be under the care of specialized physicians (33%). The present literature review also shows that attitudes toward dementia care vary across geographical regions. For example, Zhao *et al.*, conducted a comprehensive review of Chinese healthcare practitioners in 2020 and discovered a generally negative attitude toward dementia care.^[24] By contrast, of the 4460 GPs surveyed in Switzerland, only 18% found dementia management frustrating.^[25]

Our findings show that physicians with postgraduate qualifications (consultants and specialists) have a more positive attitude than those without (GPs and residents in training). Although we have no evidence on the structure of dementia training, we can hypothesize that postgraduate training in family medicine would influence attitudes toward dementia care. Most physicians were likely to have had some training in dementia care during their residency, since few undergraduate programs offered much dementia education. Medical students in Saudi Arabia should get a

Table 4: Comparison of primary care providers' attitudes toward care of dementia and confidence in dementia care scores by various variables (n=316)

Variable	Attitude		Confidence	
	Mean±SD	P-value	Mean±SD	P-value
Gender				
Male	37.2±5.4	0.330	52.3±9.3	0.969
Female	36.6±5.4		51.5±10.8	
Age (years)				
20–30	36.6±5.2	0.011*	50.6±9.7	0.118
31–40	36.3±5.1		53.9±9.4	
41–50	38.8±6.4		52.7±14.0	
51–60	40.7±6.1		51.5±11.3	
Profession				
Consultant	39.48±5.4	<0.001**	56.7±9.8	<0.001**
Specialist	37.1±5.1		53.8±8.7	
GP	35.8±5.1		49.2±10.0	
Resident in training	36.8±5.4		52.35±10.2	
Years of practice				
1–2	36.1±5.5	0.009**	50.1±9.4	0.021*
3–5	37.0±4.7		53.0±9.9	
6–10	36.6±4.8		54.5±9.5	
>10	39.2±6.0		52.1±12.8	
Number treated dementia cases treated ^d				
None	36.8±5.2	0.472	49.6±9.7	
1–10	37.0±5.6		55.3±9.8	<0.001**
>10	35.1±7.1		57.8±9.5	
Having close relative with dementia				
Yes	36.4±5.3	0.094	50.6±10.5	0.049*
No	37.4±5.4		53.3±9.5	
Number of geriatric patients treated ^a (%)				
<25	36.6±5.5	0.095	51.5±10.4	0.006**
Between 25 and 50	37.6±4.9		51.0±9.7	
>50	35.3±5.8		55.8±9.9	

*Statistically significant with $P<0.05$, **Statistically significant with $P<0.01$, ^aIn the past 6 months. SD=Standard deviation, GP=General physician

better education in the detection and diagnosis of cognitive impairment in the elderly. The fast demographic and epidemiological changes in the last several years underline the need for continuous education and training not only for graduate physicians but also for undergraduates as many of them may have to work as GPs. Several studies have indicated that dementia training – with the personal experience of dementia (having a family member with dementia) – predicted a more positive attitude to the condition.^[7,26,27]

A significant proportion of PCPs believed that their role in dementia care was limited and that it was best to refer patients to a specialist. This meant that these PCPs did not consider dementia management as their personal responsibility and did not believe in the importance of early dementia detection. According to the WHO, intervention is difficult without the effective involvement of primary care practitioners.^[28] Several studies have shown that primary healthcare plays a vital role in the early identification of dementia.^[17,29,30] Owing to the growing number of drugs available for the treatment

of Alzheimer's disease, early diagnosis of dementia is more important than ever.^[31] Since a significant number of patients present to primary care, PCPs are in a critical position in the identification and diagnosis of dementia.^[32] However, the timing of a diagnosis is not only determined by physicians but also by patients and their caregivers as well. In the UK, 96% of patients with suspected dementia were diagnosed in primary care facilities, and two-thirds of these were immediately referred to specialists for further treatment.^[33] In Germany, however, 40% of dementia cases were diagnosed in primary care.^[34] In China, almost all cases of dementia were identified by neurologists in tertiary hospitals, reflecting a severe lack of community-based dementia-specific care.^[35]

Our finding on self-CDCS was comparable to that of Wang *et al.*, in China,^[7] possibly because of the comparable backgrounds and cultures, attitudes toward older adults, clinical exposure, and similar challenges and issues that PCPs in China and Saudi Arabia have to deal with. PCPs in the present study had significantly more confidence in their diagnostic skills than in their

management skills. The most challenging skill was recognizing and managing the behavioral symptoms of dementia. Only one-third felt able to complete the NPI-Q or provide guidance on behavioral symptoms. Behavioral disturbances are common in patients with dementia and are associated with poor outcomes. These changes in behavior are sometimes the first indicators of dementia. PCPs should, therefore, be able to recognize these signs at the primary care level. However, this area of dementia research conducted in primary care settings is little investigated. Ongoing care requires close attention to behavioral changes of people with dementia. According to the current literature, many PCPs believe that it is difficult and time-consuming to determine the nature and origin of behavioral changes.^[36]

Only one-third of PCPs were confident in prescribing memory drugs; only 32.2% had ever prescribed them. Only 32.2% of our participants had ever prescribed memory drugs, which suggests a lack of expertise and little confidence. Memory drugs should be used as soon as possible, as the evidence shows that they reduce the progression of Alzheimer's disease.^[37] One previous study found that acetylcholinesterase inhibitors were underutilized in primary care.^[38] Another found that PCPs' lack of knowledge, experience, and their reliance on specialists made it difficult for them to decide whether to prescribe acetylcholinesterase inhibitors or not.^[39]

Furthermore, the PCPs not only lacked confidence in managing medication for the cognitive aspect of dementia but also in providing advice on ways to overcome the difficulties caused by cognitive decline. In fact, approximately half of the physicians were confident in giving "guidance on improving the daily life abilities for dementia patients, such as the use of the telephone." In addition, approximately half of the PCPs in the present study were unfamiliar with local resources and services that provide social support for caregivers.

The American Centers for Disease Control and Prevention's Healthy Brain Initiative recommends that countries provide credible training for healthcare professionals to enable them to care effectively for patients with dementia.^[40] Previous studies have shown a strong correlation between the impact of training programs and self-confidence for healthcare professionals.^[39,41] A study involving 414 physicians in Japan found that dementia-trained physicians had much more confidence than untrained clinicians. In addition, untrained physicians had far more negative attitudes toward dementia treatment than trained physicians.^[27] According to the findings of Subramaniam *et al.*, GPs in Singapore with postgraduate education demonstrated higher levels of confidence when working with patients who had dementia and their caregivers.^[42]

This study has some limitations. First, the use of a convenience sampling approach may have introduced some selection bias. Second, most participants were based in large cities in Saudi Arabia's Eastern Province; thus, PCPs working in rural areas were not represented. Al-Ahsa region, a major region in the Eastern Province, was not included. Third, the DCAS and CDCS scale, used in a limited number of studies, provided merely subjective reporting. The psychometric properties of the scale have not yet been tested; PCPs may have overreported positive attitudes owing to social desirability bias. Fourth, this study did not investigate causal relationships. Finally, a significant proportion of PCPs chose the option "not sure" in the CDCS scale, which was difficult to interpret.

Conclusion

The present study shows that PCPs in Saudi Arabia's Eastern Province generally have a positive attitude toward dementia care. However, a significant proportion of PCPs lacked confidence in their ability to provide dementia care, which is critical in primary care. The PCPs in primary care centers were GPs or residents with limited experience in geriatric care. PCPs may miss opportunities to diagnose dementia. The results show that they are not confident in using diagnostic tools, such as the Neuropsychiatric Inventory or Instrumental Activities of Daily Living Scale. Since postgraduate qualifications predict more positive attitudes and higher levels of confidence, extensive training of GPs in dementia care is strongly indicated. To compare results, we recommend the investigation of attitudes and confidence in other regions of Saudi Arabia. Quantitative studies to assess PCPs' dementia knowledge are encouraged to design interventions to improve their dementia knowledge, attitudes, and confidence. Intensive dementia care training is critical, especially for GPs who had not had postgraduate training and who make up the majority of physicians in primary care settings.

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Conflicts of interest

There are no conflicts of interest.

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