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Original study

Evaluating Knowledge Gaps, Attitudes, and Practices Toward Alzheimer's Disease: A Community-Based Study in Bisha Province

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Abstract

Background: Alzheimer's disease is a progressive neurodegenerative disorder and the leading cause of dementia worldwide. Public awareness of its symptoms, risk factors, and management is essential for early detection and appropriate care. This study assessed the knowledge, attitudes, and practices (KAP) regarding Alzheimer's disease among adults in Bisha Province. **Methods**: A cross-sectional study was conducted among 403 adults using a structured questionnaire assessing sociodemographic characteristics, knowledge, attitudes, and practices related to Alzheimer's disease. Descriptive statistics summarized participant responses, while multiple linear regression identified factors associated with knowledge and attitude scores. **Results**: Of the participants, 52.1% were female, with a median age of 25 years (IQR: 21–45), and most had Bachelor's/Diploma education (68.7%). Most participants correctly identified amnesia as an early symptom (81.1%), recognized the impact of malnutrition on symptoms (62.8%), and knew patients are prone to depression (58.3%). However, only 16.4% knew the disease cannot be prevented and 32.3% recognized that no cure currently exists. Positive attitudes were common, with most agreeing that patients require continuous monitoring and can still enjoy a good quality of life with proper care. Regarding practices, 83.4% stated they would advise suspected patients to seek medical care. Overall, 42.2% had high knowledge, 42.2% moderate knowledge, and 15.6% low knowledge. Marital status was significantly associated with knowledge scores (B = −0.503, p = 0.032). **Conclusion**: Adults in Bisha Province demonstrated moderate to high knowledge and positive attitudes toward Alzheimer's disease; however, notable gaps remain regarding prevention and treatment. Community-based educational programs are recommended to improve awareness and early recognition.

Keywords: Alzheimer's disease, Knowledge, Attitude, Practice, Dementia

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Introduction

Alzheimer's disease (AD) is an irreversible progressive brain disease that gradually and slowly destroys memory and rational thinking processes and skills and eventually it affects the ability to perform the simplest tasks [1]. In 1907, Aloysius Alzheimer carefully described the symptoms of a 51-year-old woman, Auguste Deter, who was under his care at the state asylum in Frankfurt Germany. Alzheimer's description of her symptoms is almost certainly the first neuropsychological characterization of the disease. Alzheimer published his now famous case study only 110 years ago, and our modern understanding of the disease that bears his name, and its neuropsychological consequences, really only began to accelerate in the 1980s [2]. Most inflicted cases typically begin to exhibit signs and symptoms of Alzheimer's after the age of 60 [1]. Accounting for 60% to 80% of dementia's causes, Alzheimer's disease makes up the majority of illnesses falling under this broad category. Complex of risk factors; some are non-modifiable, such as age, family history, genetic mutations, and others are modifiable interact to cause AD [3]. Aging is the most common risk factor for Alzheimer's disease [4]. One in nine people age 65 and older (11%) has Alzheimer's disease, whereas about one-third of people age 85 and older (32%) have Alzheimer's disease [5]. As the population ages, Alzheimer's disease (AD) has become epidemic-like. It affects approximately 5.2 million Americans (Alzheimer's Association 2014) [6]. Studies has indicated that AD is more likely to be discovered in later stage. It is critical that AD symptoms be understood by all subpopulations in order to facilitate early detection, which is a critical clinical goal [7]. The combined use of clinical evaluation (including behavioral and neuropsychological assessments) and complementary information (brain morphology and functional imaging, biological data, neurophysiology examinations) has been shown to be helpful for early diagnosis of AD, because no marker for early diagnosis has yet been identified [8]. The global number of AD patients was 44 million in 2015; however, this number is expected to triple, reaching 115 million individuals by 2050. The pooled data of population-based studies in Europe suggests that the age-standardized prevalence in people 65+ years old is 4.4% for AD [9]. AD is more common in women than in men [10]. According to the Saudi Alzheimer's Disease Association, there are 130 thousand persons affected by Alzheimer's disease in Saudi Arabia, which represents approximately 0.4% of the Saudi population [4]. This study aimed to determine the public knowledge, attitude and practice towards Alzheimer's disease in Bisha province. In addition, the study aimed to identify the beliefs about the risk factors, symptoms and management of Alzheimer's disease in Bisha province.

Method and Material

Study Design and setting

A community-based, cross-sectional study was conducted among the adult population of Bisha Province, located in the Aseer region of the Kingdom of Saudi Arabia. This design was selected to provide a "snapshot" of the current knowledge, attitudes, and practices (KAP) regarding Alzheimer's disease (AD) from November 2025 to January 2026.

Participant Recruitment and Sampling

13/06/2026

The study targeted adult residents aged 18 years and older living within Bisha Province. Using the Raosoft electronic sample size calculator with a 95% confidence level, a 5% margin of error, and a population size of 202,096, the minimum required sample size was determined to be 384. To ensure a robust dataset, 403 participants were recruited using a non-probability convenience sampling technique. Inclusion criteria required participants to be at least 18 years old and residents of Bisha, while those living outside the province or under the age of 18 were excluded.

Sample technique

A Non-Probability Convenience Sampling technique was employed to recruit participants for this study. This method was selected due to its cost-effectiveness and accessibility, allowing the researchers to reach a large number of respondents within the Bisha Province through digital platforms. While convenience sampling does not ensure the same level of representativeness as probability-based methods, it is a highly effective approach for exploratory cross-sectional studies aimed at identifying general trends in public knowledge and attitudes. To minimize selection bias, the survey link was distributed across various community-based social media groups and public forums to ensure a diverse demographic reach, including different age groups and educational backgrounds. All participants were required to voluntarily opt-in by completing the informed consent section before the survey items were presented.

Data collection

Data were gathered using a structured, online, self-administered questionnaire adapted from validated tools used in previous regional studies by Alluqmani et al.[15] and Aljezawi et al.[3] The instrument was divided into four distinct sections: socio-demographics, knowledge assessment, attitudes and practices.

Statistical Plan

Data were entered and analyzed using IBM SPSS software (29). Descriptive statistics were used to summarize the sociodemographic characteristics and responses to knowledge, attitude, and practice items, presented as frequencies and percentages. Knowledge and attitude scores were calculated based on participants' responses. The overall knowledge level was categorized into low, medium, and high levels. Multiple linear regression analysis was performed to assess the association between sociodemographic variables and knowledge and attitude scores. Statistical significance was determined at a p-value < 0.05, and results were reported with 95% confidence intervals.

Results

Among the 403 participants, females constituted 210 (52.1%) and males 193 (47.9%) with median age of 25 years. Regarding educational level, the majority had Bachelor's/Diploma education 277 (68.7%), followed by Up to High School 105 (26.1%), while only 21 (5.2%) were graduates. Most respondents resided in Bisha province 336 (83.4%), whereas 67 (16.6%) lived in Bisha villages. Concerning marital status, more than half of the participants were single 226 (56.1%), followed by married 161 (40.0%), and a small proportion were widowed or divorced 16 (4.0%). With respect to caregiving experience, the majority reported that they had never cared for someone with Alzheimer's disease 327 (81.1%), while 76 (18.9%) reported that they had previous caregiving experience for

individuals diagnosed with Alzheimer's disease *(Table 1)*.

Table 1. Sociodemographic characteristics of the study participants (n = 403)

		Frequency N (%)
Gender	Female	210 (52.1%)
	Male	193 (47.9%)
Age (Years)	Median (IQR)	25 (21-43)
Educational level	Up to High School	105 (26.1%)
	Bachelor's/Diploma	277 (68.7%)
	Graduate	21 (5.2%)
Accommodation	Bisha Province	336 (83.4%)
	Bisha Villages	67 (16.6%)
Marital Status	Single	226 (56.1%)
	Married	161 (40.0%)
	Widow/Divorced	16 (4.0%)
Ever cared for someone with Alzheimer's	No	327 (81.1%)
	Yes	76 (18.9%)

(N) Frequency, (%) Percentages

Table 2 shows the participants' knowledge regarding Alzheimer's disease. The majority of respondents 327 (81.1%) correctly identified amnesia as the most common early symptom of Alzheimer's disease. Additionally, 114 (28.3%) correctly reported that tremors or shaking of the hands or arms are not common symptoms. More than half of the participants 253 (62.8%) correctly recognized that malnutrition can worsen Alzheimer's symptoms, while 235 (58.3%) correctly indicated that individuals with Alzheimer's disease are particularly prone to depression. Only 66 (16.4%) correctly stated that Alzheimer's disease cannot be prevented. Regarding treatment, 130 (32.3%) correctly reported that there is currently no cure for Alzheimer's disease. Furthermore, 96 (23.8%) correctly identified that the average life expectancy after the onset of symptoms is approximately 6–12 years. Finally, 70 (17.4%) correctly indicated that recovery from Alzheimer's disease does not occur.

Table 2: Participants' knowledge regarding Alzheimer's disease (n = 403)

		Frequency N (%)
Most common early symptom of Alzheimer's disease	Don't Know	31 (7.7%)
	Amnesia*	327 (81.1%)
	Vision Problem	28 (6.9%)
	Joint Problem or Rash	17 (4.2%)
Tremors or shaking of the hands or arms are common symptoms in Alzheimer's disease	No*	114 (28.3%)
	Yes	152 (37.7%)
	Don't Know	137 (34.0%)
Malnutrition can worsen Alzheimer's symptoms	No	49 (12.2%)
	Yes*	253 (62.8%)
	Don't Know	101 (25.1%)
People with Alzheimer's disease are particularly prone to depression	No	50 (12.4%)
	Yes*	235 (58.3%)
	Don't Know	117 (29.0%)
Alzheimer's disease can be prevented	No*	66 (16.4%)
	Yes	200 (49.6%)
	Don't Know	137 (34.0%)
How are Alzheimer's patients treated?	Don't Know	98 (24.3%)
	No Cure*	130 (32.3%)
	With Medicines	108 (26.8%)
	By Reciting Quran	45 (11.2%)
	By Surgery	8 (2.0%)
	Yoga and Meditation	5 (1.2%)
	Others	9 (2.2%)

Average life expectancy after onset of Alzheimer's symptoms (6–12 years)	No	108 (26.8%)
	Yes*	96 (23.8%)
	Don't Know	198 (49.1%)
In rare cases, people have recovered from Alzheimer's disease	No*	70 (17.4%)
	Yes	142 (35.2%)
	Don't Know	190 (47.1%)

(N) Frequency, (%) Percentages, (*) Correct Answers

Figure 1 shows participants' understanding of Alzheimer's disease characteristics. The most frequently identified feature was memory loss (62.3%), followed by brain cell atrophy (57.8%). About 39.5% recognized language problems such as forgetting the meaning of simple words. Fewer participants identified apraxia or impaired ability to perform fine motor tasks (30.5%) and personality changes (28.8%) as features of the disease. Amnesia was reported by 21.1% of respondents.

Figure 1. Participants' understanding of what Alzheimer's disease is (multiple responses)

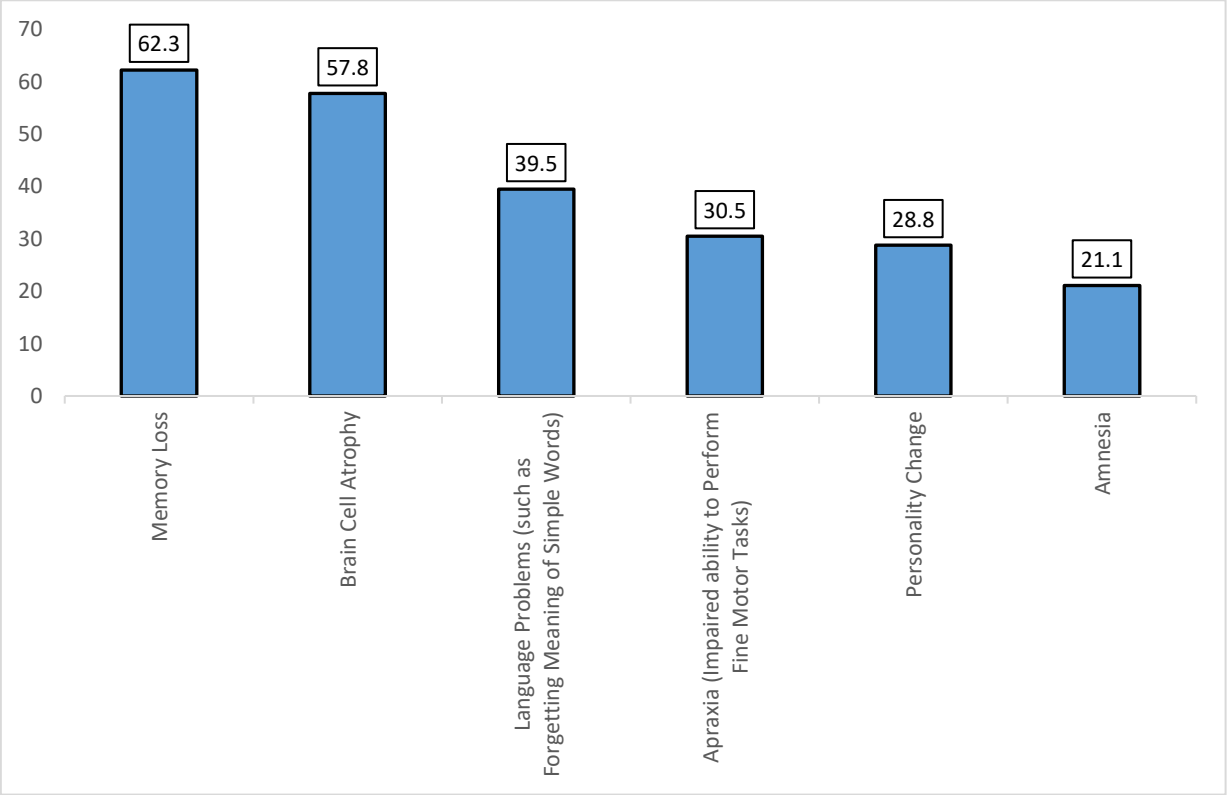

Table 3 shows the attitudes of participants toward Alzheimer's disease and patient care. Most respondents disagreed that Alzheimer's patients can make independent decisions about their health or finances, with 163 (40.4%) strongly disagreeing and 147 (36.5%) disagreeing. A large majority believed that patients require constant monitoring, as 146 (36.2%) agreed and 197 (48.9%) strongly agreed. Regarding quality of life, 202 (50.1%) agreed and 85 (21.1%) strongly agreed that patients can still enjoy a good life with proper care. Concerning social stigma, 122 (30.3%) strongly disagreed and 134 (33.3%) disagreed with keeping a family member's Alzheimer's disease secret. Additionally, 100 (24.8%) strongly disagreed and 136 (33.7%) disagreed with using traditional medicine if symptoms such as memory loss or dementia appear in a family member.

Table 3. Attitudes of participants toward Alzheimer's disease and patient care in Bisha Province.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Alzheimer's patients are able to make decisions about their health or financial matters independently	163 (40.4%)	147 (36.5%)	62 (15.4%)	20 (5.0%)	11 (2.7%)
Alzheimer's patients need constant monitoring	19 (4.7%)	9 (2.2%)	32 (7.9%)	146 (36.2%)	197 (48.9%)

With proper care, Alzheimer's patients can still enjoy a good life	21 (5.2%)	15 (3.7%)	80 (19.9%)	202 (50.1%)	85 (21.1%)
I prefer to keep the fact that a family member has Alzheimer's disease a secret from the community	122 (30.3%)	134 (33.3%)	93 (23.1%)	37 (9.2%)	17 (4.2%)
If symptoms such as memory loss and dementia appear in a family member, I will use traditional medicine	100 (24.8%)	136 (33.7%)	116 (28.8%)	36 (8.9%)	15 (3.7%)

(N) Frequency, (%) Percentages

Table 4 shows the practices of participants regarding recognition, management, and preventive behaviors related to Alzheimer's disease. The majority 336 (83.4%) reported that they would advise a suspected patient to visit a doctor first, while 38 (9.4%) would search online information and 22 (5.5%) would consider it normal aging. Regarding aggressive behavior from Alzheimer's patients, 167 (41.4%) indicated the use of medicines, whereas 104 (25.8%) did not know the appropriate approach. When patients repeat the same question or story, most participants 313 (77.7%) reported that they would respond to them every time. Concerning preventive lifestyle practices, 300 (74.4%) reported a healthy diet, 284 (70.5%) mental activities, 263 (65.3%) regular exercise, and 263 (65.3%) social interaction. For memory assistance, 307 (76.2%) reported using paper notes, 267 (66.3%) helping others, and 157 (39.0%) electronic notes.

Table 4. Practices of participants regarding Alzheimer's disease recognition, management, and preventive lifestyle behaviors in Bisha Province

		Frequency **N (%)**
If you suspect someone has Alzheimer's disease, what would you do first?	Advise him to visit doctor	336 (83.4%)
	Search online information	38 (9.4%)
	Natural aging (ignore it)	22 (5.5%)
	Other	7 (1.7%)
Best approach if encountering aggressive attacks from Alzheimer's patients	Don't know	104 (25.8%)
	Medicines	167 (41.4%)
	Ignorance	103 (25.6%)
	Physical restraint	19 (4.7%)
	Other	10 (2.5%)
	Don't know	24 (6.0%)

Correct procedure when an Alzheimer's patient repeats the same question or story	Respond to them every time	313 (77.7%)
	Remind them they are repeating	45 (11.2%)
	Ignore them	16 (4.0%)
	Others	5 (1.2%)
Lifestyle practices that may help prevent Alzheimer's disease	Exercise regularly	25 (6.2%)
	Healthy diet	300 (74.4%)
	Mental activities	284 (70.5%)
	None of the above	24 (6.0%)
	Regular exercise	263 (65.3%)
	Social interaction	263 (65.3%)
Methods used to help remember daily tasks	Electronic notes	157 (39.0%)
	Helping others	267 (66.3%)
	Paper notes	307 (76.2%)

(N) Frequency, (%) Percentages

Figure 2 shows participants' perceptions of risk factors associated with Alzheimer's disease. The majority identified aging (94.3%) as the main risk factor. Nearly half recognized genetic factors (48.1%) and stroke (44.2%) as contributing factors. Fewer participants reported high blood pressure (21.3%), high cholesterol (18.6%), and heart disease (15.1%) as potential risks. Additionally, 11.9% of respondents indicated that they did not know the risk factors.

Figure 2: Participants' perception of risk factors for Alzheimer's disease (multiple responses)

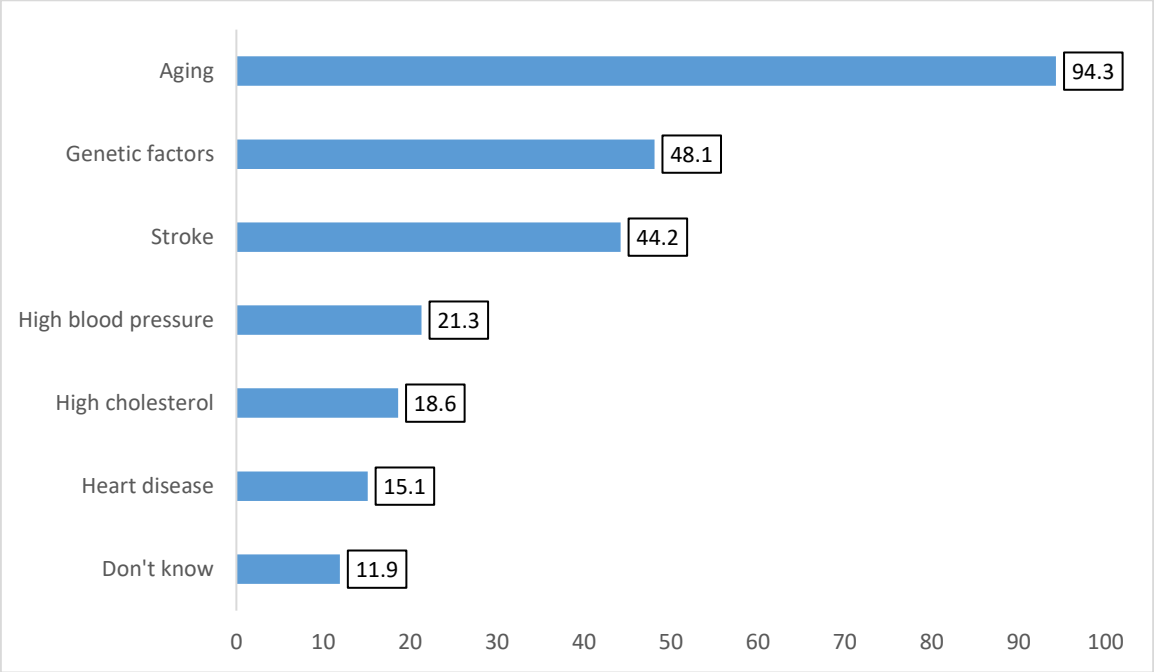

Table 5 shows the multiple linear regression analysis of sociodemographic factors associated with knowledge scores regarding Alzheimer's disease. Among the examined variables, only marital status showed a statistically significant association with knowledge scores. Clinically, this suggests that single participants had lower knowledge scores compared with other marital status groups. Age, gender, educational level, accommodation, and previous experience caring for someone with Alzheimer's disease were not significantly associated with knowledge scores.

Table 5. Multiple linear regression analysis of sociodemographic factors associated with knowledge scores regarding Alzheimer's disease (n = 403).

	B	Std. Error	t	p-value	95% CI
Age	0.014	0.010	1.366	0.173	-0.006 – 0.034
Gender (Male)	0.256	0.160	1.593	0.112	-0.060 – 0.571
Higher Educational Level	0.089	0.156	0.572	0.568	-0.218 – 0.397
Accommodation (City vs Village)	0.152	0.214	0.710	0.478	-0.269 – 0.572
Marital Status (Single vs Other)	-0.503	0.233	-2.155	0.032	-0.962 – -0.044
Ever cared for someone with Alzheimer's	0.239	0.197	1.208	0.228	-0.150 – 0.627

Constant	3.002	0.422	7.122	<0.001	2.174 – 3.831

The overall knowledge level of participants regarding Alzheimer's disease show that 42.2% of participants had a medium level of knowledge, while an equal proportion 42.2% demonstrated a high level of knowledge. In contrast, 15.6% of respondents had a low level of knowledge.

Table 6 shows the multiple linear regression analysis examining sociodemographic factors associated with attitude scores toward Alzheimer's disease. None of the examined variables showed a statistically significant association with attitude scores. Age, gender, educational level, accommodation, and previous experience caring for someone with Alzheimer's disease were not significantly associated with attitude scores. Marital status showed a borderline association suggesting a possible trend toward more positive attitudes among single participants compared with others, although this did not reach statistical significance.

Table 6. Multiple linear regression analysis of sociodemographic factors associated with attitude scores toward Alzheimer's disease

	B	Std. Error	t	p-value	95% CI (LL–UL)
Age	-0.009	0.018	-0.508	0.612	-0.045 – 0.026
Gender (Male)	-0.128	0.288	-0.445	0.656	-0.694 – 0.438
Higher Educational Level	0.021	0.281	0.074	0.941	-0.531 – 0.573
Accommodation (City vs Village)	0.302	0.384	0.786	0.432	-0.453 – 1.057
Marital Status (Single vs Other)	0.803	0.419	1.916	0.056	-0.021 – 1.626
Ever cared for someone with Alzheimer's	-0.181	0.354	-0.511	0.610	-0.878 – 0.516
Constant	13.317	0.757	17.596	<0.001	11.829 – 14.804

Discussion

Alzheimer's disease is a progressive neurodegenerative disorder and it is the most common cause of dementia worldwide [16]. It significantly affects cognitive function, daily activities of life, and quality of life of affected individuals and their families [17]. Understanding public knowledge, attitudes, and practices (KAP) toward Alzheimer's disease is essential for early recognition, timely management, and improved community awareness.

Our study shows that the sociodemographic profile showed that slightly more than half of the participants were females 210 (52.1%) with the majority had Bachelor's/Diploma education 277 (68.7%). These findings suggest that the study

population was relatively educated and primarily urban, which may influence awareness levels.

Regarding the knowledge, the study demonstrated that 327 (81.1%) of participants correctly identified amnesia as the most common early symptom of Alzheimer's disease. This indicates relatively good awareness of the typical cognitive manifestations of the disease. Previous studies have also reported that memory loss is the most commonly recognized symptom among the public. Previous studies conducted in Saudi Arabia (Arifi et al. 2020) and other region (Wolk et al. 2013) showed that most of the respondents 373 (70%) answered correctly and said that Alzheimer disease is related to mental disorders, although majority of 73.5% knew that Alzheimer disease is a neurodegenerative disease [18, 19].

However, knowledge regarding other clinical aspects of Alzheimer's disease was comparatively limited. Only 114 (28.3%) correctly identified that tremors are not common symptoms of Alzheimer's disease. Similarly, only 66 (16.4%) correctly stated that Alzheimer's disease cannot currently be prevented, and 130 (32.3%) recognized that there is no definitive cure. These findings indicate the presence of misconceptions among the general population. Similar knowledge gaps have been reported in several studies such as by Gamal et al. (2023), where participants often confuse Alzheimer's disease with other neurological conditions such as Parkinson's disease, which commonly presents with tremors [20]. Furthermore, misunderstanding regarding the prevention and treatment options has been widely documented in community-based surveys.

The findings of this study also demonstrated moderate awareness of factors that may worsen the disease. More than half of the participants 253 (62.8%) correctly recognized that malnutrition can exacerbate Alzheimer's symptoms, and 235 (58.3%) acknowledged that patients with Alzheimer's disease are prone to depression. These findings are consistent with existing medical literature which indicated that nutritional status and mental health conditions such as depression significantly influence disease progression and patient outcomes in Alzheimer's disease (Lou et al. 2023) [21].

Notably, the understanding of participants about the characteristics of Alzheimer's disease further supported these findings. Memory loss (62.3%) and brain cell atrophy (57.8%) were the most commonly recognized disease features. However, fewer respondents identified language problems (39.5%), apraxia (30.5%), and personality changes (28.8%). These results suggest that while the general population recognizes the most prominent symptoms of Alzheimer's disease, awareness of other cognitive and behavioral manifestations remains limited [22]. Previous research by Badiale et al. (2025) has reported similar patterns, where knowledge is primarily centered on memory impairment, while other neurological symptoms receive less recognition [23].

Notably, attitudes toward Alzheimer's disease in this study were generally positive. Most participants disagreed with the statement that Alzheimer's patients can independently make health or financial decisions, which indicate that understanding of the cognitive limitations associated with the disease. Additionally, the majority believed that patients require constant monitoring, with 146 (36.2%) agreed and 197 (48.9%) strongly agreed with this

statement. These findings reflect a realistic perception of the care needs of individuals with Alzheimer's disease. Similarly, there is a study by Alluqmani et al. (2023) which shows that participants have demonstrated a positive attitude toward AD patients [24].

Encouragingly, there are large proportion of participants who believed that patients can still enjoy a good quality of life with proper care, as 202 (50.1%) agreed and 85 (21.1%) strongly agreed. This positive outlook toward patient care aligns with current medical literature which emphasized supportive care, social engagement, and appropriate management to improve quality of life in Alzheimer's patients (Baumbach et al. 2023) [25].

In terms of social attitudes, most respondents rejected the idea of hiding a family member's Alzheimer's disease from the community, which suggested relatively low stigma associated with the condition. Similarly, the majority disagreed with relying on traditional medicine for dementia symptoms. These findings indicate a preference for medical consultation and evidence-based treatment approaches. Comparable findings have been reported in previous studies, where public attitudes toward dementia have gradually become more accepting as awareness increases (Muglan et al. 2023) [26].

Notably, this study also examined participants' practices related to Alzheimer's disease recognition and management. A large majority 336 (83.4%) indicated that they would advise a suspected patient to visit a doctor, which reflects appropriate health-seeking behavior. This finding is consistent with previous research demonstrating that individuals who recognize dementia symptoms are more likely to recommend medical consultation (Young et al. 2018) [27]. Regarding preventive practices, most participants identified healthy lifestyle behaviors such as maintaining a healthy diet (74.4%), engaging in mental activities (70.5%), exercising regularly (65.3%), and maintaining social interaction (65.3%). These behaviors are supported by scientific evidence suggesting that lifestyle factors may reduce the risk of cognitive decline and dementia (Vidyanti et al. 2025) [28].

Furthermore, participants also demonstrated that awareness of major risk factors associated with Alzheimer's disease. Aging was identified by 94.3% of respondents as the primary risk factor, followed by genetic factors (48.1%) and stroke (44.2%). However, fewer participants recognized cardiovascular risk factors such as high blood pressure, high cholesterol, and heart disease which is aligned with previous study by Silva et al. (2019) [29]. This finding highlights a potential gap in understanding the relationship between vascular health and dementia risk, which has been emphasized in recent medical literature.

Finally, the regression analysis revealed that marital status was the only sociodemographic factor significantly associated with knowledge scores. Single participants had lower knowledge scores compared with others. This may be explained by differences in life experience, caregiving exposure, or health information access among married individuals. No significant associations were found between sociodemographic factors and attitude scores, suggesting that attitudes toward Alzheimer's disease were relatively consistent across demographic groups.

This study has several limitations. The cross-sectional design limits the ability to establish causal relationships, and the use of self-reported online questionnaires may have introduced response bias. In addition, the study was conducted in a single region using convenience sampling, which may limit the generalizability of the findings to the wider Saudi population.

Despite these limitations, the study provides valuable insight into public awareness of Alzheimer's disease in Bisha Province. The findings highlight the need for targeted community-based educational programs focusing on misconceptions related to prevention, treatment, and disease progression. Public health campaigns and healthcare providers may play an important role in improving early recognition, encouraging timely medical consultation, and reducing stigma associated with Alzheimer's disease. Future studies should include larger and more diverse populations and evaluate the effectiveness of awareness interventions in improving public knowledge and practices.

Conclusion

This study shows moderate knowledge, generally positive attitudes, and appropriate practices regarding Alzheimer's disease among adults in Bisha Province. The findings of this study highlight the need for targeted public health initiatives to improve awareness and understanding of Alzheimer's disease in the community. Educational campaigns should focus on correcting misconceptions about prevention, treatment, and disease progression. Healthcare providers and local health authorities can play a key role in promoting early recognition of symptoms and encouraging timely medical consultation.

List of Abbreviations

KAP: Knowledge, attitude and Practice

AD: Alzheimer's disease

ADKS: Alzheimer's disease knowledge scale

KSA: Kingdom of Saudi Arabia

Conflict of interests

The authors declare that there is no conflict of interest regarding the publication of this article.

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None

Consent for participate

Written informed consent was obtained from all the participant

Ethical Approval

The study received ethical approval from the Standing Committee for Scientific Research at Bisha University [Reference No. UB-RELOC H-06-BH-087/ (06/09/47].

References

1. Alhumaidi FS, Siddiqui MI, Altowairqi AF, Alshawkani HH, Babkour BO, Alaugla FK. Public knowledge about Alzheimer disease in Mecca Region, Kingdom of Saudi Arabia: a cross-sectional study. Egypt J Neurol Psychiatr Neurosurg. 2020;56(1). doi:10.1186/s41983-020-00220-0

2. Bondi MW, Edmonds EC, Salmon DP. Alzheimer's disease: past, present, and future. J Int Neuropsychol Soc. 2017;23(9–10):818–31. doi:10.1017/S135561771700100X

3. Aljezawi M, Al Qadire M, Suliman M, Al Omari O, Khalaf A. Undergraduate nursing students' knowledge of and attitudes toward people with Alzheimer's disease. BMC Geriatr. 2022;22(1). doi:10.1186/s12877-022-03389-6

4. Algahtani H, Shirah B, Alhazmi A, Alshareef A, Bajunaid M, Samman A. Perception and attitude of the general population towards Alzheimer's disease in Jeddah, Saudi Arabia. Acta Neurol Belg. 2020;120(2):313–20. doi:10.1007/s13760-018-1040-7

5. Alhazzani AA, Alqahtani AM, Alqahtani MS, Alahmari TM, Zarbah AA. Public awareness, knowledge, and attitude toward Alzheimer's disease in Aseer region, Saudi Arabia. Egypt J Neurol Psychiatr Neurosurg. 2020;56(1). doi:10.1186/s41983-020-00213-z

6. Yang HF, Cong JY, Zang XY, Jiang N, Zhao Y. Knowledge, attitudes and health behaviours regarding Alzheimer's disease among community residents in Tianjin, China. J Psychiatr Ment Health Nurs. 2015;22(9):706–14. doi:10.1111/jpm.12259

7. Fornazzari L, Fischer C, Hansen T, Ringer L. Knowledge of Alzheimer's disease and subjective memory impairment in Latin American seniors in the Greater Toronto Area. Int Psychogeriatr. 2009;21(5):966. doi:10.1017/S1041610209990433

8. Werner P. Knowledge about symptoms of Alzheimer's disease: correlates and relationship to help-seeking behavior. Int J Geriatr Psychiatry. 2003;18(11):1029–36. doi:10.1002/gps.1011

9. Qiu C, Kivipelto M, von Strauss E. Epidemiology of Alzheimer's disease: occurrence, determinants, and strategies toward intervention. Dialogues Clin Neurosci. 2009;11(2):111-128. doi:10.31887/DCNS.2009.11.2/cqiu.

10. El-Metwally A, Toivola P, Al-Rashidi M, Nooruddin S, Jawed M, AlKanhal R, et al. Epidemiology of Alzheimer's disease and dementia in Arab countries: a systematic review. Behav Neurol. 2019;2019:1–14. doi:10.1155/2019/3935943

11. Stefaniak O, Dobrzyńska M, Drzymała-Czyż S, Przysławski J. Diet in the prevention of Alzheimer's disease: current knowledge and future research requirements. Nutrients. 2022;14(21):4564. doi:10.3390/nu14214564.

12. Kafadar AH, Barrett C, Cheung KL. Knowledge and perceptions of Alzheimer's disease in three ethnic groups of younger adults in the United Kingdom. BMC Public Health. 2021;21(1). doi:10.1186/s12889-021-11231-8

13. Amado DK, Brucki SMD. Knowledge about Alzheimer's disease in the Brazilian population. Arq Neuropsiquiatr. 2018;76(11):775–82. doi:10.1590/0004-282X20180106

14. Sun F, Gao X, Shen H, Burnette D. Levels and correlates of knowledge about Alzheimer's disease among older Chinese Americans. J Cross Cult Gerontol. 2014;29(2):173–83. doi:10.1007/s10823-014-9229-6

15. Alluqmani M, Zahid HM, Alhussaini AR, Bokhari OK, Alharbi SS, Aljohani AR, et al. Public awareness, knowledge, and attitude towards Alzheimer's disease in Medina, Saudi Arabia. Res Square. 2023. doi:10.21203/rs.3.rs-2598765/v116. Breijyeh Z,

Karaman R. Comprehensive review on Alzheimer's disease: causes and treatment. Molecules. 2020;25(24):5789. doi:10.3390/molecules25245789.

17. Kamatham PT, Dharani A, Basha SA, et al. Pathogenesis, diagnostics, and therapeutics for Alzheimer's disease: breaking the memory barrier. Ageing Res Rev. 2024;101:102481. doi:10.1016/j.arr.2024.102481.

18. Wolk DA, Signoff ED, Dekosky ST. Recognition memory in amnestic mild cognitive impairment: insights from event-related potentials. Front Aging Neurosci. 2013;5:1-9. doi:10.3389/fnagi.2013.00008.

19. Al Arifi MN. Evaluation of knowledge of Alzheimer disease among health university students in Riyadh, Saudi Arabia. Saudi Pharm J. 2020;28(8):911-915. doi:10.1016/j.jsps.2020.06.009.

20. El-Gamal F, Alotaibi A, Alharbi M, Alrashidi N, Alshammari A, Alenezi A, et al. Knowledge about Alzheimer's disease in Saudi Arabia. Cureus. 2023;15(12):e50188. doi:10.7759/cureus.50188.

21. Lou X, Ali K, Chen Q. Effect of nutrition in Alzheimer's disease: a systematic review. Front Neurosci. 2023;17:1147177. doi:10.3389/fnins.2023.1147177.

22. Hu Y, Zhu T, Zhang W. The characteristics of brain atrophy prior to the onset of Alzheimer's disease: a longitudinal study. Front Aging Neurosci. 2024;16:1344920. doi:10.3389/fnagi.2024.1344920.

23. Stramba-Badiale C, Bessi V, Bracco L, Tognoni G, Siciliano G, Nacmias B, et al. Autobiographical memory in Alzheimer's disease: a systematic review. Front Neurol. 2025;16:1541618. doi:10.3389/fneur.2025.1541618.

24. Alluqmani M, Zahid HM, Alhussaini AR, Bokhari OK, Alharbi SS, Aljohani AR, et al. Public awareness, knowledge, and attitude towards Alzheimer's disease in Medina, Saudi Arabia. Res Square. 2023. doi:10.21203/rs.3.rs-2598765/v1.

25. Baumbach L, Heller AR, Mache S, et al. Patients satisfied with care report better quality of life and self-rated health: cross-sectional findings based on hospital quality data. Healthcare (Basel). 2023;11(3):357. doi:10.3390/healthcare11030357.

26. Muglan J, Alzahrani A, Alharbi A, Alghamdi M, Alqahtani F, Alzahrani R, et al. Public awareness, knowledge, and attitude toward Alzheimer's disease in Makkah, Saudi Arabia. Cureus. 2023;15(11):e49047. doi:10.7759/cureus.49047.

27. Perry-Young L, Owen G, Kelly S, Owens C. How people come to recognise a problem and seek medical help for a person showing early signs of dementia: a systematic review and meta-ethnography. Dementia (London). 2018;17(1):34-60. doi:10.1177/1471301215628069.

28. Vidyanti AN, Tjandrawinata RR, Wibowo Y, et al. Lifestyle interventions for dementia risk reduction: a review on the role of physical activity and diet in Western and Asian countries. J Prev Alzheimers Dis. 2025;12(2):100028. doi:10.14283/jpad.2024.128.

29. Silva MVF, Loures CMG, Alves LCV, de Souza LC, Borges KBG, Carvalho MDG. Alzheimer's disease: risk factors and potentially protective measures. J Biomed Sci. 2019;26(1):33. doi:10.1186/s12929-019-0524-y.

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