BMC Neurology

RESEARCH

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Knowledge, awareness, attitudes, and practices toward Parkinson's disease among the general population in Saudi Arabia

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Abstract

Background Parkinson's disease is a progressive disease that causes damage to parts of the brain, especially the substantia nigra. It is the most common motor brain condition.

Objective To investigate the knowledge, awareness, attitudes, and practices toward Parkinson's disease among the general population in Saudi Arabia.

Methods This cross-sectional study was conducted in Saudi Arabia from July 20 to November 20, 2024, targeting adults aged 18 years and older. Participants ($n=385$) were randomly selected via social media platforms, using a bilingual (Arabic and English) online questionnaire. The survey included demographics, knowledge, awareness, attitudes, and practices. Data was analyzed using SPSS (version 28), with ethical approval obtained.

Results A total of 330 participants were surveyed, mostly young (292, 88.5% aged 18–24), female (269, 81.5%), and students (281, 85.2%). Nearly half (162, 49.1%) had heard of PD, but only 81 (24.5%) showed good knowledge, with misconceptions about causes and treatment. Commonly recognized symptoms included hand tremors (292, 88.5%) and poor balance (210, 63.6%), while awareness of non-motor symptoms was low. Most participants (319, 96.7%) supported public education, and 310 (93.9%) recommended social support for PD patients.

Conclusion This study emphasizes the lack of public knowledge and awareness regarding Parkinson's disease, its symptoms, and its causes in Saudi Arabia. The results highlight the need for educational efforts to improve understanding and address misconceptions.

Categories Neuroscience.

Keywords Parkinson's disease, Knowledge, Awareness, Attitudes

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Introduction

Parkinson's disease (PD) is a neurodegenerative disorder in which parts of the brain, particularly the substantia nigra, become progressively damaged over many years. The main symptoms include tremors, slow movement, and stiff muscles. There can be other psychological and physical symptoms, such as depression, anxiety, and balance problems. PD is caused by a loss of nerve cells in a part of the brain called the substantia nigra. This causes a decrease in dopamine in the brain [1]. Dopamine is a chemical messenger that transmits signals in the brain, regulating the movement of the body. It is unclear what exactly causes the loss of nerve cells. Genetic and environmental factors may contribute to the development of the disease [2].

PD is a prevalent disease and the most common motor brain condition. Estimates suggest that it affects at least 1% of people over the age of 60. PD is usually age-related, but it can happen in young adults [3]. Most people with PD start to develop symptoms when they are over 50. Men are at a slightly higher risk of developing the disease than women. Currently, there is no cure for PD. There are some treatments that can help improve the symptoms and quality of life. These include physiotherapy, medications, and surgery in some cases. There are no specific tests to diagnose PD. Diagnosis is usually done based on your symptoms, medical history, and physical examination [1].

Knowledge, awareness, attitudes, and practices toward PD can play a crucial role in improving patient care and health promotion. In Saudi Arabia, there is limited research regarding knowledge, awareness, attitudes, and practices toward PD. Therefore, this study aims to evaluate the knowledge, awareness, attitudes, and practices toward PD among the general population in Saudi Arabia.

Methods

Study design

A cross-sectional study was conducted in Saudi Arabia from 20 July 2024 to 20 November 2024 to evaluate the knowledge, awareness, attitudes, and practices toward PD among the general population. Data was collected through an online questionnaire distributed via widely used social media platforms to reach a diverse sample of the population. An electronic consent form was provided to participants before the survey, detailing the purpose of the study, voluntary participation, and confidentiality to ensure ethical standards were upheld.

The questionnaire was developed specifically for this study to evaluate the knowledge, awareness, attitudes, and practices toward PD among the general population in Saudi Arabia. The questionnaire was developed in English and then translated into Arabic to ensure accurate and quick responses. The translation was then refined and adapted by experts to ensure accuracy, cultural relevance, and clarity.

Participant recruitment

Participants were randomly selected from the general adult population of Saudi Arabia. Inclusion criteria included male and female Saudi adults aged 18 years or older who were able to provide informed consent. Exclusion criteria included healthcare workers, expatriates, and individuals who declined participation. The survey link was distributed to eligible participants via email, WhatsApp, and other social media platforms.

Data collection

The questionnaire was carefully self-developed ad-hoc to align with the objectives of the study. It was divided into four sections: demographic information, knowledge and awareness, attitudes, and practices toward PD. Demographic information: Participants provided details about their age, gender, education, and occupation. Knowledge and awareness: Participants were asked about their knowledge and awareness of PD, including common symptoms, risk factors, and available treatments. Attitudes: In addition, the participants were asked about their attitudes toward PD through a series of statements. Practices: This section aimed to assess participants' behaviors and actions related to PD awareness and management. The survey was designed to take approximately 10–15 min to complete. Upon submission, responses were automatically saved in a secure, encrypted database.

Sample size calculation

The sample size was calculated using the Raosoft sample size calculator, which applies a standard formula for estimating sample size based on data from the 2022 Saudi census. A sample size of 385 participants was determined to achieve a 95% confidence level and a 5% margin of error. Although the determined sample size was 385 participants, the final number of participants was 330 due to low response rates. Nevertheless, the sample remains sufficient for reliable interpretation and results.

Data analysis

The data were collected, reviewed, and then fed to Statistical Package for Social Sciences version 26 (Released 2019. Armonk, NY: IBM Corp). All statistical methods used were two-tailed with an alpha level of 0.05, considering significance if the P value is less than or equal to 0.05. An overall knowledge score was computed by

summing the correct answers where the correct answer was given a 1-point score and 0 was given otherwise. Participants with knowledge scores less than 60% of the total correct answers were considered to have poor knowledge levels, while others with knowledge scores of 60–100% were considered to have good knowledge levels. The threshold was set at 60% of the total correct answers to effectively differentiate between knowledge levels based on the proportion of correct responses. Descriptive analysis for categorical data was done using frequencies and percentages, whereas numerical data were presented as mean with standard deviation. Also, participants' knowledge and awareness about PD were tabulated while the combined level of knowledge and awareness was graphed. Cronbach's alpha value is 0.79 for the knowledge section, demonstrating an acceptable reliability level. Cross-tabulation is used to show factors associated with participants' knowledge about PD and to assess the relation between their knowledge and practice using the Pearson Chi-Square test and the exact probability test for small frequency distributions.

Ethical approval

The IMSIU Institutional Review Board (IRB) Committee approved the study (project number 665–2024; approval date, June 20, 2024). All writing was collected in accordance with the ethical principles of the Declaration of Helsinki. The survey link included a brief study description and a more detailed explanation on the front page.

Results

The socio-demographic characteristics of the study participants (Table 1) from Saudi Arabia reveal a youthful and predominantly female population. Most participants (292, 88.5%) were in the 18–24 age range, with only a small proportion in older age brackets. Geographically, most participants were from the Central Region (179, 54.2%), followed by the Western Region (75, 22.7%), while the Southern (16, 4.8%) and Northern Regions (21, 6.4%) had the fewest participants. Regarding gender, females represented the vast majority of the sample (269, 81.5%). The educational level of participants was generally high, with 228 (69.1%) having a university education, and only a small percentage (7, 2.1%) holding a postgraduate degree. The marital status data shows that most participants were single (301, 91.2%). In terms of employment, a large majority were students (281, 85.2%), with a smaller proportion employed (17, 5.2%) or not working (28, 8.5%). These characteristics suggest a largely young, educated, and student-based sample with a significant gender imbalance.

Table 2 shows public knowledge and awareness about PD among 330 respondents. Nearly half (162, 49.1%) had heard about the disease, while 105 (31.8%) had not, and 63 (19.1%) were unsure. Only 45 (13.6%) knew someone with PD, and 270 (81.8%) had no personal connection. Although 246 (74.5%) had seen someone with hand tremors, a prominent symptom, only 39 (11.8%) believed PD exclusively affects individuals over 60. Most respondents (297, 90%) correctly identified the disease as non-contagious. Regarding its nature, 211 (63.9%) labeled it as a movement disorder, while others described it as a brain disorder (109, 33%), mental illness (3, 0.9%), or spiritual illness (7, 2.1%). Awareness of symptoms was high for hand tremors (292, 88.5%) and poor balance (210, 63.6%) but lower for issues like cognitive impairment (99, 30%) or sleep disorders (76, 23%). While 243 (73.6%) identified PD as a neurological disease, significant misconceptions included genetic causes (182, 55.2%) or supernatural factors (33, 10%). Most (319, 96.7%) supported the need

Table 1 Socio-demographic characteristics of study participants, Saudi Arabia ($n = 330$)

Socio-demographics	No	%
Region		
Central Region	179	54.2%
Northern Region	21	6.4%
Eastern Region	39	11.8%
Western Region	75	22.7%
Southern Region	16	4.8%
Age in years		
18–24	292	88.5%
25–34	23	7.0%
35–44	5	1.5%
45–55	6	1.8%
> 55	4	1.2%
Gender		
Male	61	18.5%
Female	269	81.5%
Educational level		
Secondary/below	78	23.6%
Diploma	17	5.2%
University education	228	69.1%
Post-graduate degree	7	2.1%
Marital status		
Single	301	91.2%
Married	26	7.9%
Divorced/widow	3	.9%
Work status		
Not working	28	8.5%
Student	281	85.2%
Employee	17	5.2%
Retired	4	1.2%

Table 2 Public knowledge and awareness about Parkinson's disease and its clinical features ($n = 330$)

Knowledge and awareness		No	%
Have you heard about Parkinson's disease?	Yes	162	49.1%
	Maybe	63	19.1%
	No	105	31.8%
Do you know someone with Parkinson's disease?	Yes	45	13.6%
	Maybe	15	4.5%
	No	270	81.8%
Have you ever seen someone suffering from hand tremors?	Yes	246	74.5%
	Maybe	28	8.5%
	No	56	17.0%
Do you think that Parkinson's only affects those aged 60 and over?	Yes	39	11.8%
	Maybe	74	22.4%
	No	217	65.8%
Have you ever heard of any support groups or organizations for people with Parkinson's?	Yes	22	6.7%
	Maybe	29	8.8%
	No	279	84.5%
Is Parkinson's disease contagious?	Yes	2	.6%
	Maybe	31	9.4%
	No	297	90.0%
What is Parkinson's disease?	Movement disorder	211	63.9%
	Brain disorder	109	33.0%
	Mental disorder or insanity	3	.9%
	Spiritual illness	7	2.1%
Can a patient with Parkinson's disease function normally in his daily activities?	Yes	83	25.2%
	Maybe	189	57.3%
	No	58	17.6%
Education and awareness should be provided to the public about Parkinson's disease	Yes	319	96.7%
	Maybe	11	3.3%
What are the causes of Parkinson's disease?	Neurological disease	243	73.6%
	Genetic	182	55.2%
	Brain disease	181	54.8%
	Mental or emotional stress disorder	155	47.0%
	Congenital disease	66	20.0%
	Jinn and envy	33	10.0%
	I don't know	57	17.3%
Symptoms and signs of Parkinson's disease	Hand tremor	292	88.5%
	Poor balance and coordination	210	63.6%
	Muscle stiffness or rigidity	157	47.6%
	Speech changes	148	44.8%
	Slow motion	131	39.7%
	Cognitive impairment	99	30.0%
	Sleep disorders	76	23.0%
	Mask face	75	22.7%
	Depression	47	14.2%
	Decreased smell	20	6.1%
	Constipation	18	5.5%
	I don't know	60	18.2%
Does surgical intervention play a role in cases of advanced Parkinson's disease?	Yes	70	21.2%
	Maybe	227	68.8%
	No	33	10.0%

for education, with 227 (68.8%) uncertain about surgical interventions for advanced cases.

Regarding the combined level of knowledge and awareness, only 81 participants (24.5%) demonstrated a good, combined level of knowledge and awareness, while the majority, 249 participants (75.5%), displayed a poor level.

Table 3 provides the public's attitudes and perceptions towards PD in Saudi Arabia. It shows that most people (175, 53%) believe individuals with PD do not have good health compared to the general population, with a significant portion (124, 37.6%) uncertain about this. However, 310 (93.9%) of respondents agree that people with PD should be supported by society and encouraged to participate in social activities. Concerning the impact on quality of life, 224 (67.9%) of people think that PD does affect it, although a small group (19, 5.8%) disagrees. A total of 51 (15.5%) think PD is socially stigmatized, but most individuals would react positively if they learned someone they knew had Parkinson's, as 302 (91.5%) said they would treat that person the same as before. The vast majority of the participants report that people with PD should be supported and helped by society. Additionally, more than half (184, 55.8%) expressed an interest in participating in awareness campaigns about the disease.

Table 4 highlights public responses and suggested treatments for PD in Saudi Arabia. Most respondents (115, 34.8%) expressed a willingness to offer support and sympathy, followed by encouraging medical consultation (84, 25.5%) and providing practical assistance (55, 16.7%). Fewer individuals suggested sharing treatment information (29, 8.8%) or providing emotional support (23, 7.0%). Markedly, 24 (7.3%) were unsure of how to respond. Regarding treatment suggestions, the majority (288, 87.3%) recommended visiting a physician, while smaller proportions endorsed reading the Qur'an (25, 7.6%) or alternative methods like acupuncture (4, 1.2%).

As for factors associated with public knowledge and awareness about PD in Saudi Arabia (Table 5), it reveals several significant findings. A significant association was observed between educational level and knowledge of PD. Individuals with secondary education or below had a lower proportion of good knowledge, with 67 (85.9%) having poor knowledge and 11 (14.1%) having good knowledge, compared to those with a university education, where 164 (71.9%) had poor knowledge and 64 (28.1%) had good knowledge, and those with post-graduate degrees, where 2 (28.6%) had poor knowledge and 5 (71.4%) had good knowledge ($p = 0.001$). Also, a significant relationship was found between knowing someone with PD and the level of knowledge ($p = 0.011$). Among those who knew someone with PD, 26 (57.8%) had poor knowledge, and 19 (42.2%) had good knowledge, while 212 (78.5%) of those who did not know anyone with the

disease had poor knowledge, and 58 (21.5%) had good knowledge. Likewise, awareness of support groups for PD was also significantly associated with better knowledge, as among individuals who had heard of support groups, 12 (54.5%) had poor knowledge and 10 (45.5%) had good knowledge, compared to 217 (77.8%) with poor knowledge and 62 (22.2%) with good knowledge among those who had not heard of any support groups ($p = 0.036$). In contrast, factors such as region, age, gender, marital status, and work status did not show significant associations with knowledge levels, as their p-values were higher than the commonly accepted significance threshold ($p > 0.05$).

Table 6 evaluated the association between the public's knowledge about PD and their actions when faced with someone affected by the disease. Most participants said they would help with daily tasks (42, 16.9% with poor knowledge; 13, 16.0% with good knowledge) and offer support or sympathy (88, 35.3% with poor knowledge; 27, 33.3% with good knowledge). However, fewer people reported providing emotional support, with just a small percentage (18, 7.2% of those with poor knowledge and 5, 6.2% of those with good knowledge) saying they would listen and offer emotional care. Regarding treatment suggestions, both groups largely agreed that seeing a physician was the most appropriate action (216, 86.7% of those with poor knowledge and 72, 88.9% of those with good knowledge). There was very little difference in the support for alternative treatments like herbal medicine, acupuncture, or reading the Qur'an.

Discussion

The public awareness and knowledge levels about the condition are often limited. The public's knowledge and awareness of PD in Saudi Arabia reveal varying levels of awareness and a range of misconceptions about the disease. Approximately half of the respondents had heard of PD, which aligns with findings from previous studies in Saudi Arabia, where awareness of PD was found to be

Table 3 Public attitude and perception towards Parkinson's disease in Saudi Arabia ($n = 330$)

Attitude and perception	No	%
Do you think that people with Parkinson's disease have good health compared to the general population?		
Yes	31	9.4%
Maybe	124	37.6%
No	175	53.0%
Do you think that Parkinson's disease is socially stigmatized?		
Yes	51	15.5%
Maybe	127	38.5%
No	152	46.1%
Would you like to participate in a Parkinson's disease awareness campaign or event?		
Yes	184	55.8%
Maybe	105	31.8%
No	41	12.4%
Do you think Parkinson's affects a person's quality of life?		
Yes	224	67.9%
Maybe	87	26.4%
No	19	5.8%
How would you react if you learned that someone you knew had Parkinson's disease?		
I will treat him/her as before	302	91.5%
I would feel some embarrassment and fear, and I would prefer to avoid it	2	.6%
I will feel very embarrassed and afraid, and I will stop contacting him/her	2	.6%
I don't know/don't want to answer	24	7.3%
People with Parkinson's disease should be supported and helped by society		
Yes	310	93.9%
Maybe	15	4.5%
No	5	1.5%
People with Parkinson's disease should be encouraged to participate in social activities and events		
Yes	310	93.9%
Maybe	19	5.8%
No	1	.3%

Table 4 Public responses and suggested treatments for Parkinson's Disease, Saudi Arabia

Responses and suggested treatments	Count	Column N %
What would you do if someone had Parkinson's disease?		
Offer support: I will offer my support and sympathy	115	34.8%
Encouragement to seek medical advice	84	25.5%
Assistance with practical needs: I will provide practical assistance with daily tasks	55	16.7%
Provide information and available treatment options	29	8.8%
Emotional support: I listen carefully and provide emotional support	23	7.0%
I don't know	24	7.3%
If a relative or friend has Parkinson's disease, what type of treatment do you suggest?		
Visit physician	288	87.3%
Reading the Qur'an	25	7.6%
Tell them that Parkinson's disease is not treatable	6	1.8%
Acupuncture	4	1.2%
Get the medicine from a drugstore	3	.9%
Ask about herbal medicine	2	.6%
No need for treatment	2	.6%

relatively low. A study by Alharthy et al. [4] reported that only 43% of Saudi participants were familiar with PD, which highlights a similar level of awareness to the present study. However, it is important to note that a significant portion of the participants had never heard of the disease, indicating that there is still a considerable gap in public awareness. Interestingly, only 13.6% of respondents knew someone with PD, and 81.8% had no personal connection to the disease. This finding is consistent with international research, such as a study in the UK by McDermott et al. [5], which found that many individuals with limited personal exposure to PD were less likely to have a deeper understanding of the disease. This lack of personal connection to PD may contribute to the low knowledge level observed in the study, where only about one-fourth of participants demonstrated good knowledge of the disease. The negative consequences may include lower health promotion, delayed diagnoses, and reduced patient care.

While most of the participants reported having seen someone with hand tremors, a classic symptom of PD, this does not necessarily translate to a deeper understanding of the disease. In comparison, research in other regions, such as in the United States [6], found that public awareness about specific symptoms of PD, like tremors and poor balance, was higher. However, it is worth noting that the recognition of symptoms like cognitive impairment and sleep disorders was much lower in this Saudi sample. This suggests that while the more obvious motor symptoms are recognized, the non-motor symptoms, which significantly affect the quality of life in PD patients, are less well-known. A key finding from this study is that about two-thirds of participants identified PD as a movement disorder. However, there were significant misconceptions, with some participants identifying it as a brain disorder or, less frequently, as a mental illness or spiritual illness. This aligns with the findings of a similar study conducted in Saudi Arabia by Al-Shammari et al. [7], where a significant portion of the public confused PD with other neurological or psychiatric disorders. These misconceptions could delay early diagnosis and appropriate treatment-seeking behavior. About the causes of PD, most of the respondents identified it as a neurological disease, but more than half reported genetic, and fewer respondents attributed it to supernatural causes, such as"jinn"or envy. This reflects a broader trend seen in many regions, including the Middle East, where cultural and traditional beliefs often influence the public's understanding of health conditions. For instance, studies in Egypt and Lebanon [8] found that supernatural explanations for diseases were commonly believed, particularly in areas with lower health literacy. Also, Alyamani AM et al. [9] found that Motor symptoms were significantly better recognized than non-motor symptoms among the Saudi population. On the other hand, another study in Tabuk City by Qasim MM et al. [10] revealed that the majority of participants demonstrated adequate understanding and awareness of PD in their respective occupations.

International studies also show a similar pattern of awareness. For instance, a study conducted in the United States found that although 80% of participants were familiar with PD, their understanding of its broader spectrum of symptoms, including cognitive and psychiatric

Table 5 Factors associated with public knowledge and awareness about Parkinson's disease, Saudi Arabia

Factors	Overall knowledge level				*p*-value
	Poor		Good		
	No	%	No	%	
Region					.304
Central Region	128	71.5%	51	28.5%	
Northern Region	16	76.2%	5	23.8%	
Eastern Region	34	87.2%	5	12.8%	
Western Region	58	77.3%	17	22.7%	
Southern Region	13	81.3%	3	18.8%	
Age in years					.580^
18–24	221	75.7%	71	24.3%	
25–34	15	65.2%	8	34.8%	
35–44	4	80.0%	1	20.0%	
45–55	5	83.3%	1	16.7%	
> 55	4	100.0%	0	0.0%	
Gender					.735
Male	45	73.8%	16	26.2%	
Female	204	75.8%	65	24.2%	
Educational level					.001*^
Secondary/below	67	85.9%	11	14.1%	
Diploma	16	94.1%	1	5.9%	
University education	164	71.9%	64	28.1%	
Post-graduate degree	2	28.6%	5	71.4%	
Marital status					.484^
Single	225	74.8%	76	25.2%	
Married	21	80.8%	5	19.2%	
Divorced/widow	3	100.0%	0	0.0%	
Work status					.497^
Not working	21	75.0%	7	25.0%	
Student	213	75.8%	68	24.2%	
Employee	11	64.7%	6	35.3%	
Retired	4	100.0%	0	0.0%	
Do you know someone with Parkinson's disease?					.011*
Yes	26	57.8%	19	42.2%	
Maybe	11	73.3%	4	26.7%	
No	212	78.5%	58	21.5%	
Have you ever seen someone suffering from hand tremors?					.267
Yes	181	73.6%	65	26.4%	
Maybe	21	75.0%	7	25.0%	
No	47	83.9%	9	16.1%	
Have you ever heard of any support groups or organizations for people **with** Parkinson's?					.036*
Yes	12	54.5%	10	45.5%	
Maybe	20	69.0%	9	31.0%	
No	217	77.8%	62	22.2%	

P Pearson X^2 test

^ *Exact probability test*

* *P < 0.05 (significant)*

aspects, was significantly lower [11]. Similarly, a study in the United Kingdom revealed that while tremors and motor issues were recognized by most participants, only 30% correctly identified cognitive dysfunction and depression as symptoms of PD [12]. In Jordan, a study found that only 20% of the population had good knowledge about PD, with the majority unable to identify non-motor symptoms or the role of physical therapy in managing the disease [13]. These findings suggest that there is a gap in public knowledge, not only in Saudi Arabia but also in Western countries, regarding the full range of symptoms associated with PD.

Regarding attitude and perception, the current study reveals that most respondents perceive individuals with PD as having poorer health compared to the general population, with many also being uncertain about this assessment. However, a large majority believes that people with PD should receive support from society and be encouraged to engage in social activities. The majority also recognize that PD negatively affects the quality of life, although a small group disagrees. In terms of stigma, only a minority feels that PD is socially stigmatized, and most people would treat someone with PD the same as before knowing about their condition. Additionally, there is considerable interest in participating in awareness campaigns about the disease. These results demonstrate a sympathetic understanding of public responsibility, with a definite desire for greater awareness and involvement in social support programs. They also demonstrate an understanding of the difficulties faced by people with PD. These viewpoints align with worldwide tendencies that highlight the value of awareness, education, and social support in enhancing the quality of life for PD patients [14–16].

Study limitations

This study has a few limitations that should be considered when interpreting the results. The study had an oblique demographic with a predominantly young and female sample, limiting the ability to interpret the results of other age groups and genders. Also, the ability to make casual inferences is limited because it is cross-sectional research. So, it is difficult to identify if a change in one variable causes a change in another. Moreover, self-reported data and recall bias may have affected the accuracy of participants' responses, especially regarding knowledge of PD.

Conclusion and recommendations

The findings of this study offer important insights into the public's knowledge, attitudes, and perceptions of PD in Saudi Arabia. A significant portion of the population lacks awareness, with almost half of the respondents

Table 6 Relation between public knowledge about Parkinson's disease and their practice

Practice	Overall knowledge level				*p*-value
	Poor		Good		
	No	%	No	%	
What would you do if someone had Parkinson's disease?					.866
Assistance with practical needs: I will provide practical assistance with daily tasks	42	16.9%	13	16.0%	
Offer support: I will offer my support and sympathy	88	35.3%	27	33.3%	
Emotional support: I listen carefully and provide emotional support	18	7.2%	5	6.2%	
Encouragement to seek medical advice	60	24.1%	24	29.6%	
Provide information and available treatment options	21	8.4%	8	9.9%	
I don't know	20	8.0%	4	4.9%	
If a relative or friend has Parkinson's disease, what type of treatment do you suggest?					.313^
Visit physician	216	86.7%	72	88.9%	
Get the medicine from a drugstore	2	.8%	1	1.2%	
Ask about herbal medicine	2	.8%	0	0.0%	
Acupuncture	2	.8%	2	2.5%	
Reading the Qur'an	22	8.8%	3	3.7%	
Tell them that Parkinson's disease is not treatable	3	1.2%	3	3.7%	
No need for treatment	2	.8%	0	0.0%	

P Pearson X^2 test

^ *Exact probability test*

having never heard of the disease. Many also showed unsatisfactory awareness about symptoms and causes. Despite these gaps in understanding, the majority of respondents show strong support for people with PD, emphasizing the importance of social inclusion and offering help. This includes emotional support, helping with daily tasks, and encouraging medical consultation. There is a clear willingness to participate in awareness campaigns, reflecting a compassionate attitude. However, the study highlights the urgent need for more effective educational efforts to address these misconceptions and enhance public knowledge about the disease.

To raise awareness and support for people with PD in Saudi Arabia, there needs to be more education to clear up common misconceptions, especially among those with less education. Support groups and community programs could help reduce the stigma and encourage more social involvement. Doctors should give clear, easy-to-understand information about all treatment options, including surgery. There should also be more focus on both practical and emotional support, with public health campaigns using media and social platforms to spread the word and get people more involved in helping those with PD live better lives.

Abbreviations

PD Parkinson's Disease
P Pearson X^2 test
^ Exact probability test

Supplementary Information

The online version contains supplementary material available at https://doi.org/10.1186/s12883-025-04178-5.

Supplementary Material 1.

Authors' contributions

Authors' contributions: Salahuddin.K: Writing—original draft, review, editing Meshal.A: Data curation, Formal analysis, Writing—original draft, Writing—review & editing. Faisal.A: Writing—original draft, review, editing Renad.A: Data curation, Writing—original draft, Writing—review & editing. Alanoud.A: Data curation, Writing—original draft, Writing—review & editing. Amjad.A: Data curation, Prepared Figures, Writing—original draft, Writing—review & editing. Muhammad.A: Writing—original draft, review, editing Arwa.H: Writing—original draft, review, editing Amra.S: Writing—original draft, review, editing Ahmed.A: Writing—original draft, review, editing.

Funding

The author(s) declare that financial support was received for the research and/or publication of this article. This work was supported and funded by the Deanship of Scientific Research at Imam Mohammad Ibn Saud Islamic University (IMSIU) (grant number IMSUI-DDRSP2501).

Data availability

All data generated or analyzed during this study are included in this published article.

Declarations

Ethics approval and consent to participate

The IMSIU Institutional Review Board (IRB) Committee approved the study (project number 665–2024; approval date, June 20, 2024). All writing was collected in accordance with the ethical principles of the Declaration of Helsinki. An electronic informed consent form was provided to participants before the survey, detailing the purpose of the study, voluntary participation, and confidentiality to ensure ethical standards were upheld.

Consent for publication

Not applicable.

Competing interests

The authors declare no competing interests.

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Received: 17 January 2025 Accepted: 4 April 2025
Published: 16 April 2025

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