Original Contribution

Evaluating the Acceptance and Awareness of GPT-Based AI for Health Assistance in Clinical Practice among Registered Physicians of Bangladesh

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In the changing field of healthcare, AI models based on GPT technology have the potential to bring about changes in how diseases are diagnosed and treated. Despite global enthusiasm, there is a critical gap in exploring the acceptance and awareness of these AI tools among doctors in Bangladesh. This investigation becomes crucial as it navigates the challenges faced by physicians in middle-income countries like Bangladesh, providing a foundation for future implementations and advancements in AI-assisted healthcare. Therefore, this study aims to explore the acceptance and awareness of GPT-based AI for clinical practice among doctors in Bangladesh. In this study, we looked at 398 registered physicians in Bangladesh. The research used a convenient sampling method and employed a questionnaire to collect information. The size of the sample was chosen using a calculation for a 95% confidence level. Statistical analysis included looking at combined data, calculating frequencies and percentages well, and using the Chi-square test and multivariate logistic regression bivariate and multivariate analysis was done. All statistical analysis was done using Stata 17 software. This study examines GPT-based AI acceptance and awareness among Bangladeshi physicians. Key findings reveal a prevalence of 26.13% for acceptance and 71.11% for awareness. Acceptance significantly varies with age (p=0.013), preferring those aged 21-30. Gender (p=0.001) influences awareness, showing in females. Physicians aged 41-50 exhibit lower acceptance odds (AOR=0.13), and females have decreased acceptance odds (AOR=0.29). Demographics don't significantly impact awareness. This study sheds light on Bangladeshi doctors' views on GPT-based AI in healthcare. While some actively support its use, a majority are aware. Age, gender, and workplace influence acceptance. Tailored strategies are vital for addressing concerns. Future research should focus on understanding physicians' adoption of GPT-based AI.

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Key words: GPT-Based AI, Health Assistance, Clinical practice, Registered physicians

Introduction

Accurate and immediate diagnosis of diseases holds importance in clinical practice as it forms the basis for effective treatment and patient well-being[1,2]. As the era progresses, different technology emerges to ensure the benefit of the individuals. In this scene, the advent of Artificial Intelligence (AI) has paved the way for advancements with the introduction of AI web chatbots like Bing AI and ChatGPT. These chatbots have demonstrated capabilities across different fields, including healthcare[3,4,5]. AI models like ChatGPT and Bing AI, powered by GPT technology, hold immense potential to revolutionize disease diagnosis by providing efficient and reliable results[6,7,8]. These models are trained on various datasets and can provide predictions regarding the probability of various diseases based on a patient's symptoms and medical history[9]. This may assist doctors in their decision-making process by offering real-time data analysis capabilities[10].

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However, despite the growing interest in the potential of GPT-based AI language models for diagnostic purposes, healthcare professionals, especially doctors in Bangladesh, need more certainty regarding the actual benefits of integrating these AI tools into their practice[11,12,13,14]. Some nations have already started using AI tools to assist in practices, while others are still in the phases of integrating these technologies. Most Physicians may not have concerns about the accuracy of AI diagnoses and may require additional knowledge about how these tools can assist them in clinical practice[15,16,17,18]. The physician also may or may not adopt this technology, which can help them in their clinical practice[19,20,21,22]. These challenges are particularly pertinent in lower economic countries like Bangladesh, where many physicians may need to be made aware of the capabilities and implications of GPT-based AI language models. Understanding the current state of the adoption of AI chatbots as medical assistants and gaining insights into the potential future integration of AI language models in the healthcare sector is crucial for optimizing patient care and healthcare delivery[23,24]. Integrating intelligence (AI) into healthcare sectors has proven to be incredibly advantageous in improving effectiveness and decision-making processes in many countries[25,26]. AI technologies like GPT-based systems have exhibited the potential to improve precision and patient results across various medical fields. These models' ability to process natural language and leverage real-time data analysis makes them valuable tools for supporting physicians in diagnosing and managing patients' conditions effectively[27]. It was found that numerous doctors acknowledge the benefits of integrating AI into healthcare in fields like diagnosis, treatment strategies and patient monitoring[28]. However, AI technology still faces challenges when it comes to comprehending and understanding information at middle-income country levels, like Bangladesh[29,30,31]. So, this comprehensive literature review creates a question of whether Bangladeshi physician will accept or them aware of this technology and whether they will use this AI tool as their healthcare assistant in clinical practice. To find out this, we identified a crucial research gap as this domain hasn't been explored. So, this research aims to explore the acceptance and awareness of GPT-based AI, like ChatGPT and Bing AI, for clinical practice among doctors in Bangladesh. The study focuses on the novelty by identifying the prevalence of acceptance and awareness among these physicians, which would provide valuable insight into the future implementation of AI in clinical practice among doctors.

Methods

There are approximately 1,86,000 dedicated medical professionals holding MBBS and BDS degrees in Bangladesh[32]. These doctors are all under the umbrella of BMDC registration, forming the bedrock of this study's focus. For this study, we've chosen a cross-sectional design, which gives us a snapshot of how registered physicians in Bangladesh perceive and accept GPT-based AI tools. This approach helps us capture a wide range of opinions from doctors at a specific period, allowing us to understand the current state of awareness and acceptance among physicians.

Study design

Our study used a convenient sample strategy, which meant we reached out to doctors in the most convenient way for them to participate. This afforded us a wide variety of opinions as we involved doctors from different specialties. Our exclusive attention was on doctors with Licensed MBBS or BDS degrees, ensuring a focused and relevant perspective.

$$N = z^2 p \frac{1-p}{d^2}$$

Assume we have a sample size of 'n' people. The standard normal deviation, indicated as 'z', is commonly set at 1.96, corresponding to a 95% CI level. Furthermore, the proportion of individuals in the target group that possess qualities is considered to equal 50%. The desired margin of error 'd' is commonly set to 0.5%. Thus, $N = (1.96)^2 \times 0.50 \times (1\text{-}0.50) \div (0.05)^2 = 385$. Therefore, a minimum sample size of 385 would be necessary for this study.

Inclusion and exclusion criteria

Our criteria for including participants were doctors who had completed at least an MBBS or BDS degree and were BMDC registered. Consent was key for participation – only those who willingly provided their consent were part of our

study. We excluded intern doctors and incomplete survey fill-up data.

Data collection

To gather insights, we used both digital and physical approaches. A valid questionnaire was first introduced for collecting physician data. In the questionnaire set, we collected the demographic characteristics of the individual. Also, we used the Likert tool with 5 questions to check the awareness parameter of the participant. Even before starting data collection, a pilot survey of 30 physicians was assessed first in order to identify any issues and the validity and reliability of the process. This Likert tool questionnaire's internal consistency was checked using Cronbach's alpha and McDonald's omega (ω) coefficient values, which gave the value of 0.7907 and 0.7954, respectively, which means there is strong internal consistency present throughout the Likert tool. We utilized a Google form to collect data online through an interpersonal approach. We also distributed it through private social media doctors' groups to collect data from doctors who were not feasible enough to reach. On the other hand, in the physical part, we created paper surveys and went to feasible locations where we could easily find a suitable number of doctors. In social media, we took data from Facebook and WhatsApp groups, and in the physical world, we went to multiple hospitals, diagnostic centres', and private chambers in which we collected data from physicians. The participants were instructed properly on how to fill out the questionnaire and submit their responses so that they would not face issues as part of the process of collecting data. In the physical approach, the identification of hospitals, chambers, and diagnostics was most crucial. We tried to collect data from doctors identifying suitable times for physicians' convenience as well as from different geographical areas in Bangladesh to see the actual perception of doctors towards acceptance of GPT-based AI tools. The data collection process ensures consistency and reliability in collecting physician data. Adequate training was given to each personnel in handling both physical and digital data during the collection procedure.

Study participant

Although 385 participants were our minimum requirement for getting a good result, we collected a total of 414 participant data. Among them, 16 data were excluded as they were not properly filled out, and some provided multiple entries. We identified them carefully and excluded them. Through the online approach, we collected 148 participants' information, and from the offline approach, we collected the rest of the participants' information from our survey. After carefully filtering all the data, we finalized 398 data for our study participants, which were sent for further analysis.

Outcome measure

The primary outcome variables were the 'Acceptance' and 'Awareness' of using GPT-based AI tools, indicating whether participants accept and are aware of GPT-based AI as a form of medical support. For acceptance, the binary variable was derived from participants' responses to the question "Whether they want to accept GPT-based AI as their medical assistant", where an affirmative response is coded as acceptance ('Yes'), and a negative response is coded as non-acceptance ('No'). In addition, we tried to determine the participants' "awareness of using AI tools" through the Likert tool, where they were asked, "I am familiar with GPT-based AI as medical assistance". "I understand the capabilities and medical applications of GPT-based AI". "I actively seek information to stay updated on GPT-based AI advancements in the medical field". "I feel confident in my knowledge of how GPT-based AI impacts medical practice". "I believe familiarity with GPT-based AI is crucial for personal and societal development in the medical field". Participants were asked to share their opinions, and this was labeled as Strongly Agree, Agree, Neutral, Disagree, and Strongly Disagree. These values are coded as 1-5, and after collecting the data, they are summed up, and the mean value of each of the Likert variables is assessed. The mean cut point was set to 2.5, where participants had a mean score of less than 2.5 were labeled as Aware, and those above 2.5 were labeled as not aware.

Independent variable

The section on independent variables in the research covers a range of factors related to participants' demographic characteristics regarding the adoption of Artificial Intelligence in the field of medical science. We gather

information about demographics such as age groups ranging from 21-30 years, 31-30 years, 41-50 years and above 50 years old, gender (male and female), and educational diversity, including graduate and postgraduate qualifications. In terms of professional designation, we consider categories as Medical officers, Resident medical officers, registers, professors, and others. Workplace in various healthcare settings categorized as Government hospitals, Private hospitals, Medical colleges/teaching hospitals, Healthcare clinics/centers and others.

Ethical consideration

Ethical considerations (IRB #2023/OR NSU/IRB/0806) place emphasis on the well-being of participants by ensuring that they are fully informed, their confidentiality is protected, and their autonomy is respected. The study follows the principles of beneficence, aiming to contribute to our understanding of AI adoption. Reporting the findings with transparency upholds integrity and adheres to the standards set by North South University IRB while prioritizing the well-being of the participants.

Statistical Analysis

The study conducted an analysis, including the factors influencing physicians' acceptance and Awareness of GPT-based AI as a medical assistant among doctors in clinical practice. Through univariate analysis, we carefully explored participants' demographic characteristics. We calculated frequencies and percentages for variables such as age group, gender, education level, current designation, and workplace, which were the participants' key demographic variables. We also calculated the prevalence of Acceptance and Awareness of GPT-based AI. In terms of bivariate analysis, we assessed the association between the demographic characteristics and the acceptance as well as awareness of the physicians. P-value significant association was shown with ($^{\Psi}$), where an increased number of these represented the strength of the association. Additionally, a sophisticated multivariate logistic regression was used to examine the adjusted odds ratio (AOR) of variables on both acceptance and awareness of AI. We calculated the AOR and 95% confidence intervals for factors such as age group, gender, education level, current designation, current workplace, and prior acceptance and awareness of AI applications as medical assistants in clinical practice. Here, the significant strength of AOR is shown by the (*) value, where the higher number of this symbol represents the higher likelihood of statistical significance. This advanced statistical method helped us identify the factors that contribute to physicians' acceptance and awareness of AI by considering demographic variables. We carefully did the analysis of the data through Stata 17 software.

Results

Figure 1 showing how registered physician feels about GPT-based AI, visually displays the acceptance and awareness among the participants. It shows that around 26.13% of respondents are actively supportive of this technology, indicating they accept it. On the other hand, a larger group of 71.11% shows familiarity, with GPT-based AI reflecting awareness. The vertical axis represents these percentages from 0% to 100%, while the horizontal axis categorizes responses as either 'Acceptance' or 'Awareness', providing a view of the prevalence of participants perceiving the technology.

Demographic characteristics

In our study, we initially looked into the demographic characteristics of the participants. The age group showed that the majority of doctors fall into the 21-30 years category (55.53%) and 31-40 years category (30.65%). Doctors aged 41 to 50 years made up 9.30%, while those in the 51-60 years and over 60 years categories accounted for 4.02% and 0.50%, respectively. As for gender, there was a balanced representation, with more than one-third (34.42%) male and the rest being females (65.58%).

In terms of educational background, registered doctors were graduates (67.59%), with the remaining 32.41% having postgraduate qualifications. The Current designations held by doctors varied, with more than half serving as medical officers (54.77%), followed by resident medical officers (7.29%), registered physicians (3.52%), professors (5.78%), and others (28.64%). The distribution across workplaces was diverse: government hospitals (22.86%), private hospitals (27.39%), medical colleges or teaching hospitals (16.08 %), healthcare clinics or centres (6.53 %), and other workplaces (27.14 %).

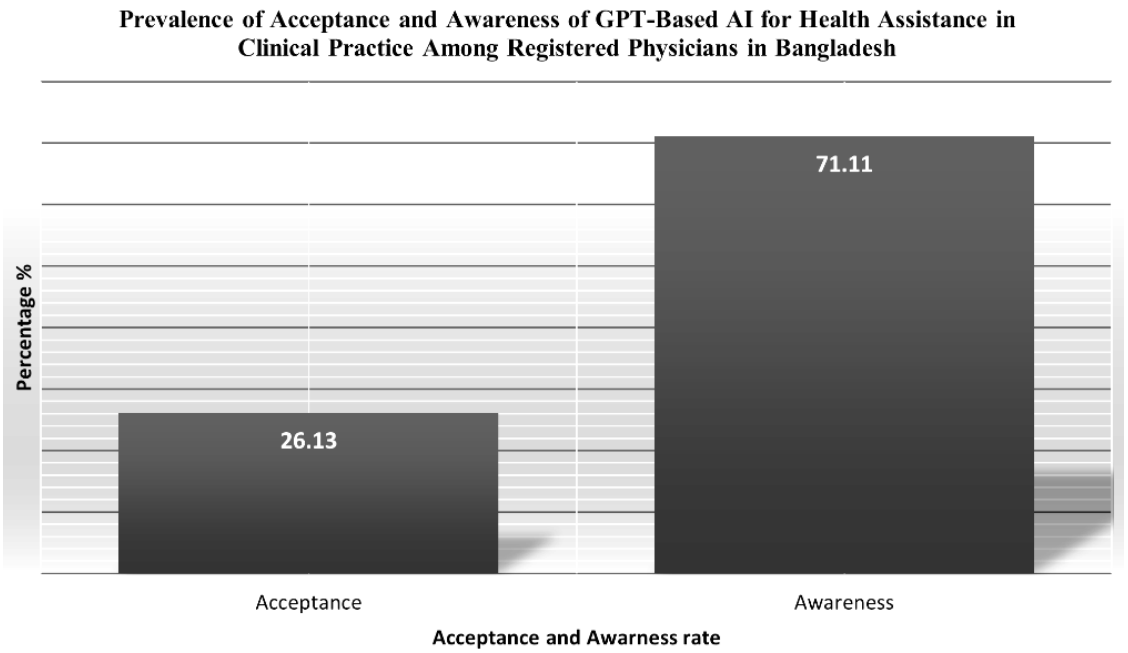

Figure 1: Bar chart showing the prevalence of acceptance and awareness of GPT-based AI tools for Health Assistance in Clinical Practice among registered physicians in Bangladesh

Table I: Demographic characteristics of the participants

Characteristics	Frequency (n)	Percent (%)
Age groups (years)		
21-30	221	55.53
31-40	122	30.65
41-50	37	09.30
51-60	16	04.02
Above 60	02	00.50
Gender		
Male	137	34.42
Female	261	65.58
Education level		
Graduate	269	67.59
Post Graduate	129	32.41
Current designation		
Medical officer	218	54.77
Resident medical officer	29	07.29
Register	14	03.52
Professor	23	05.78
Others	114	28.64
Current workplace		
Govt hospital	91	22.86
Private hospital	109	27.39
Medical college/teaching hospital	64	16.08
Healthcare clinic/center	26	06.53
Others	108	27.14

Demographic factors association on GPT-Based AI acceptance and awareness

Through the Chi-square test, we uncovered an important association between demographics and the acceptance and awareness of doctors regarding using GPT-based AI as their healthcare assistance. Notably, age was shown to have an association with acceptance (p=0.013), and it also found that different age groups of physicians had varying levels of acceptance. Physicians aged 21-30 years displayed the highest acceptance rate (65.38%) compared to other age groups. Gender also played a role in the acceptance (p=0.001) of GPT-based AI among physicians in Bangladesh. Male physicians showed high acceptance rates (55.77%), while female physicians demonstrated high awareness of the technology (66.08%). These results suggest an association between gender and how physicians perceive AI-based health assistance. Although education level did not show an association with acceptance, there was a trend observed among physicians based on their level of education. Graduates tended to have a rate of acceptance (74.04%) compared to post graduates (25.96%).

In the end, the present workplace showed a strong association with acceptance (p=0.001). Doctors at private hospitals displayed acceptance (27.88%), but anyone who's in a workplace other than the categorized workplace tends to have the highest acceptance (42.31%) of using GPT-based AI as their medical assistance in clinical practice.

Table II: Association between demographic factors with acceptance and awareness of the physician using GPT-based AI as their assistant in clinical practice

Characteristics	Acceptance		Awareness	
	No	Yes	No	Yes
	n (%)	n (%)	n (%)	n (%)
Age groups (years)	p=0.013$^{\Psi}$		p=0.245	
21-30	153 (52.04)	68 (65.38)	61 (53.04)	160 (56.54)
31-40	91 (30.95)	31 (29.81)	34 (29.57)	88 (31.10)
41-50	34 (11.56)	3 (2.88)	11 (9.57)	26 (9.19)
51-60	16 (5.44)	2 (1.92)	9 (7.83)	9 (3.18)
Gender	p=0.001$^{\Psi\Psi\Psi}$		p=0.742	
Male	79 (26.87)	58 (55.77)	41 (35.65)	96 (33.92)
Female	215 (73.13)	46 (44.23)	74 (64.35)	187 (66.08)
Education level	p=0.102		p=0.264	
Graduated	192 (65.31)	77 (74.04)	73 (63.48)	196 (69.26)
Post graduated	102 (34.69)	27 (25.96)	42 (36.52)	87 (30.74)
Current designation	p= 0.670		p=0.498	
Medical Officer	157 (53.40)	61 (58.65)	63 (54.78)	155 (54.77)
Resident Medical Officer	21 (7.14)	8 (7.69)	11 (9.57)	18 (6.36)
Register	9 (3.06)	5 (4.81)	3 (2.61)	11 (3.89)
Professor	18 (6.12)	5 (4.81)	9 (7.83)	24 (4.95)
Others	89 (20.27)	25 (24.04)	29 (25.22)	85 (30.04)
Current workplace	p=0.001$^{\Psi\Psi\Psi}$		p=0.974	
Govt. Hospital	77 (26.19)	14 (13.46)	25 (21.74)	66 (23.32)
Private Hospital	80 (27.21)	29 (27.88)	34 (29.57)	75 (26.50)
Medical Collage/Teaching Hospital	55 (18.71)	9 (8.65)	18 (15.65)	46 (16.25)
Healthcare Clinic/Center	18 (6.12)	8 (7.69)	8 (6.96)	18 (6.36)
Others	64 (21.77)	44 (42.31)	30 (26.09)	78 (27.56)

*Denote: (*Chi² significance: $^{\Psi}$ = p-value <0.05, $^{\Psi\Psi}$ = p-value <0.01, $^{\Psi\Psi\Psi}$ = p-value <0.001*)*

Demographic factors influencing GPT-Based AI acceptance and awareness

This study showed on how demographic factors affect the acceptance and awareness of GPT-based AI and uncovered some valuable insights. Physicians aged 41-50 years have a lower likelihood of accepting AI (AOR=0.13 95% CI; 0.02-0.59) as their medical assistance in clinical practice compared to those physicians aged 21-30 years and this is moderately statistically significant. Gender plays a role as females exhibit a decreased likelihood of acceptance odds (AOR=0.29, 95% CI; 0.17-0.48) compared to male doctors, and this is highly statistically significant. However, gender doesn't significantly impact awareness levels. The workplace factor yields results in the 'Others' category where participants have higher odds of accepting (AOR=3.11, 95% CI; 1.46-6.58) compared to those who work in govt. Hospital, which is moderately statistically significant. However, no factor was found to be statistically significant in terms of influencing awareness of GPT-based AI, suggesting that demographic characteristics may not play a major role in understanding general awareness of this technology.

Table III: Demographic factors influencing Acceptance and Awareness of physician using GPT-based AI as their assistant in clinical practice

Characteristics	*Acceptance*		*Awareness*	
	AOR	95% CI	AOR	95% CI
Age group (years)				
21-30	Ref		Ref	
31-40	0.72	0.40-1.29	0.96	0.56-1.64
41-50	0.13	0.02-0.59**	0.93	0.37-2.32
51-60	0.18	0.02-1.24	0.32	0.09-1.15
Gender				
Male	Ref		Ref	
Female	0.29	0.17-0.48***	1.06	0.65-1.71
Education level				
Graduated	Ref		Ref	
Post graduated	1.04	0.47-2.31	0.64	0.31-1.33
Current designation				
Medical officer	Ref		Ref	
Resident medical officer	1.25	0.43-3.59	0.85	0.33-2.16
Register	2.91	0.71-11.86	2.77	0.62-12.34
Professor	7.21	1.42-36.63*	1.29	0.37-4.39
Others	1.13	0.57-2.23	1.49	0.78-2.83
Current workplace				
Govt. hospital	Ref		Ref	
Private hospital	1.24	0.56-2.74	0.70	0.36-1.38
Medical collage/teaching hospital	0.75	0.28-2.01	1.15	0.52-2.55
Healthcare clinic/center	1.71	0.57-5.13	0.74	0.43-1.67
Others	3.11	1.46-6.58**	0.85	

Denote: (P-value indication: * = p-value <0.05, ** = p-value <0.01, *** = p-value <0.001, AOR=adjusted odds ratio)

Discussion

Through our study, we have found some valuable insight regarding how registered doctors in Bangladesh perceive and embrace GPT-based AI tools for healthcare purposes. The prevalence showed that 26.13% actively support, while 71.11% are aware of the use of GPT-based AI in their clinical practice. The high level of awareness indicates knowledge of the technology that exists, and registered doctors in Bangladesh have known this. This increased awareness could be possible due to the growing discussions around AI in

healthcare, including conferences and professional development efforts that highlight its potential in settings[33]. On the other hand, the lower percentage of physicians who want to accept (26.13%) AI as their healthcare assistance in Bangladesh may suggest physicians are hesitant to adopt GPT-based AI in healthcare due to concerns about the learning curve, potential disruptions, and ethical implications. Issues like patient privacy, data security, and ethical use of AI algorithms contribute to this caution as physicians balance technological advancements with ethical standards[34]. Their cautious approach is driven by a demand for concrete evidence on the effectiveness and reliability of GPT-based AI in real-world medical settings. After knowing the prevalence, it is now important to demonstrate the demographic characteristics of the participating doctors. The majority of participants were in the 21-30 age groups, with more than one-third of the doctors being male and around two-thirds being female. Moreover, two-thirds of the participants hold only an MBBS degree, more than half are working as medical officers, and they are working across diverse workplaces, including government hospitals, private hospitals, medical colleges or teaching hospitals, healthcare clinics or centres, and other workplaces. Moving toward bivariate and multivariate analysis, we uncovered an important association between demographics and the acceptance and awareness of doctors regarding using GPT-based AI as their healthcare assistance. Age was found to have a significant connection to acceptance. It was also discovered that physicians of different age groups exhibited differing degrees of acceptance. There is a notable trend seen where the Increased age group tends to decrease the acceptance of AI as a healthcare assistant. This is also reflected in the multivariate part, as Physicians aged 41-50 years have a lower likelihood of accepting AI as their medical assistance in clinical practice compared to those physicians aged 21-30 years and this is moderately statistically significant. One possible reason could be attributed to a generational divergence in familiarity and comfort with emerging technologies[35]. Physicians in the 21-30 age groups might be more comfortable and willing to integrate AI technologies into their medical practice as they may have more knowledge of modern technologies. This could be attributed to their positive thinking on adopting this technology. On the contrary, physicians aged 41-50 exhibit a relatively lower acceptance, potentially stemming from a lesser degree of familiarity or adaptability to newer technological innovations. Gender also played a role in significant association with the acceptance of GPT-based AI among physicians in Bangladesh. There is a decreasing trend towards female physicians as acceptance was more found in males rather than females. Although there is no statistically significant finding, women showed high awareness of the technology (66.08%). Multivariate analysis also revealed that females exhibit a decreased likelihood of acceptance odds compared to male doctors, which could contribute to male physicians' having more positive attitude and acceptance as they are more likely to keep themselves up to date with modern technology, while female physicians may have lower knowledge levels and less adaptability towards AI[36]. Moreover, the present workplace showed a strong association with acceptance. We had workplace categories which include: Govt. hospital, Private hospital, Medical collage/teaching hospital, healthcare clinic/center, others. It was found that the other categories have the highest acceptance rate (42.31%). This has also been reflected in the multivariate part, as they found a diverse trend across the workplace categories. Other categories showed a higher likelihood of accepting AI compared to those who work in govt. Hospital. One possible reason could be utilizing modern technology, fostering innovation, and a more favorable disposition toward AI adoption. The higher acceptance rates observed among those affiliated with the 'Others' workplace category, such as private research institutions or tech-driven healthcare entities, may be attributed to a strategic emphasis on embracing cutting-edge technologies within their medical practices[37]. Throughout the study, no statistically significant association or demographic factor influencing awareness of GPT-based AI was identified. Despite examining various demographic characteristics, including age, gender, education level, and workplace, none were found to have a significant impact on the awareness levels among the participants. This absence of statistically significant associations suggests that demographic factors may not play a

major role in shaping the general awareness of GPT-based AI in the context of the study.

Limitation

The sampling method used in this study may have introduced bias since participants were recruited through social media, which could limit the applicability of the findings to a group of physicians in Bangladesh. Additionally, relying on self-reported data collected both digitally and physically can lead to response bias, where participants provide answers that are desirable or inaccurately recall information. Despite efforts to ensure the validity and reliability of the survey, there may still be limitations related to how questions were worded and the response options provided, which can influence how participants respond and subsequent data analysis. Furthermore, focusing on demographic factors may overlook other important factors like socio-economic status or technological infrastructure that could also influence the findings. It's worth noting that this study's cross-sectional design only provides a snapshot at a point in time, making it difficult to establish causality or capture changes over time. Lastly, it's important to recognize that external factors such as policies, regulatory frameworks, and technological advancements weren't extensively explored in this study but could play a role in shaping the acceptance of AI in practice. Subjectivity is introduced in the analysis of physician awareness when using a Likert scale, as the interpretation of themes heavily depends on judgment. It is crucial to acknowledge these limitations to ensure a nuanced understanding of the study's findings and to provide guidance for further research in the evolving realm of AI implementation in healthcare.

Conclusion

Our study provides insights into how registered doctors in Bangladesh perceive GPT-based AI tools in healthcare. While 26.13% actively support and 71.11% are aware of AI in clinical practice, a lower acceptance rate suggests hesitancy due to concerns about the learning curve, potential disruptions, and ethical implications or other barriers. Demographically, age, gender, and workplace exhibit notable associations with AI acceptance. Younger physicians and males show higher acceptance. The absence of statistically significant associations in awareness indicates that demographic factors may not significantly influence general awareness of GPT-based AI in this context. Our results emphasize the relationship between demographics and technology adoption dynamics, underscoring the importance of tailored strategies to address concerns and encourage healthcare technology integration. Further study should focus on assessing the Knowledge, attitude, and practice of the physician regarding their adoption of using GPT-based AI as their medical assistant.

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