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ChatGPT Role in a Medical Survey

Abdel Rahman Feras AlSamhori[1], Jehad Feras AlSamhori[1], Ahmad Feras AlSamhori[1]

[1] University of Jordan

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High Yield Medical Reviews

Significant progress has been made in AI over the past decade, but its application in clinical care remains limited. However, ChatGPT, an advanced language model developed by OpenAI, shows great promise in medicine and can significantly impact medical surveys by improving data collection and generating valuable insights for better healthcare outcomes. ChatGPT has the potential to enhance survey research by assisting in various aspects, including survey design, sampling, data cleaning, analysis, and reporting, improving the quality and efficiency of the research process. AI chatbots like ChatGPT in survey administration can enhance response rates and participant engagement, providing a better user experience and capturing more comprehensive data. Numerous studies have demonstrated ChatGPT's impressive performance in clinical reasoning exams, addressing complex questions in pathology, microbiology, and life support scenarios, making it a valuable tool for data analysis and decision-making in healthcare. While using ChatGPT in medical surveys offers advantages such as accessibility, language versatility, knowledge democratization, and efficiency, there are also disadvantages, including response sensitivity, data limitations, accuracy concerns, bias, and limited access to recent literature. Ethical concerns in AI healthcare include privacy issues, mistrust in AI systems, societal prejudices, and racial biases, which can be addressed through privacy protection measures, transparency, trust-building efforts, bias mitigation strategies, and involving relevant stakeholders in the process.

INTRODUCTION

Significant progress has been made in neural networks, deep learning, and artificial intelligence (AI) in the past decade, bringing about revolutionary changes in various industries, including manufacturing, finance, and consumer products.[1] One notable advancement is the ability to rapidly develop highly accurate classification models regardless of input data types, such as images, text, or audio.[2] This breakthrough has resulted in the widespread adoption of applications like automated object and user tagging in photos,[2] achieving text translation comparable to human capabilities,[3] enabling automated scanning in bank ATMs, and even generating descriptive captions for images.[4] While these technologies have significantly impacted multiple sectors, their application in clinical care remains limited.[1] This limitation is primarily due to the prevalent use of free-text fields in clinical documentation and the lack of interoperability between health IT systems.[1] These factors contribute to a scarcity of structured, machine-readable data for developing deep learning algorithms.[1] Even when algorithms applicable to clinical care are created, their quality often varies, and many fail to work effectively across different healthcare settings due to technical, statistical, and conceptual reproducibility[5] limitations. 5; as a result, most successful healthcare applications currently focus on back-office functions such as payor operations, automated prior authorization processing, and management of supply chains and cybersecurity threats.[1] Although there are some exceptions, the direct use of AI in widespread clinical care, even in medical imaging, remains relatively uncommon.[1] The progress of clinical artificial intelligence (AI) models requires considerable time, resources, and, most importantly, highly specialized training data specific to particular domains and problems.[6] Such resources are scarce within the healthcare field. However, a significant breakthrough that has facilitated the utilization of AI for image-based analysis in clinical imaging is the capability of large-scale, general-purpose models to perform on par with or surpass models designed for specific domains.[1] This advancement has driven substantial progress in medical imaging, which would otherwise face challenges in acquiring sufficient annotated clinical images.[1] Currently, Inception-V3, a widely-used model, is the foundation for numerous notable medical imaging models in various publications, including those in ophthalmology,[6,7] pathology,[8] and dermatology.[9] Recently, remarkable advancements have been made in artificial intelligence (AI), particularly in AI chatbots. OpenAI has introduced a large language model (LLM) called ChatGPT (Chat Generative Pre-Trained Transformer),[10] initially unveiled as a prototype on November 30, 2022.[11] Unlike previous AI models that primarily relied on Deep Learning (DL) models to identify patterns in data, LLMs represent a new type of AI algorithm trained to predict the probability of a specific sequence of words based on the preceding context.[1] ChatGPT

has gained significant attention across diverse industries since its launch due to its ability to provide comprehensive and human-like answers to a wide range of queries.[1] Its potential medical applications, such as medical writing, documentation, and education, have also been recognized.[1] Recent reports have even suggested that ChatGPT has successfully passed the prestigious US medical examination, highlighting its potential significance in the medical domain.[1]

Our objective is to investigate the impact of ChatGPT in medical surveys, to improve data collection, and generate valuable insights to enhance healthcare outcomes.

WHAT IS CHATGPT

ChatGPT is an advanced language model developed by OpenAI based on the GPT-3.5 architecture, which stands for 'Generative Pre-trained Transformer 3.5.'[12] The model is designed to comprehend and generate text resembling human language,[12] utilizing deep learning techniques and a neural network known as a transformer.[12] It has been extensively trained on a vast corpus of text data from the internet, enabling it to acquire knowledge and language patterns from diverse sources.[13]

ChatGPT is specifically designed for conversational interactions, making it proficient in understanding and responding to prompts or questions conversationally. It excels at providing relevant and context-aware answers.[14] The model has been fine-tuned for various informal tasks, making it applicable to virtual assistants, customer support, and content generation.[14]

The primary capability of ChatGPT is generating human-like text responses.[14-16] Its training on a vast amount of internet text data empowers it to comprehend and generate text across a wide range of topics.[14-16] Notably, ChatGPT can engage in conversations initiated by providing a prompt or initial message. It can handle questions, explanations, and casual chats on various subjects.[14-16] ChatGPT strives to understand the context of the conversation and deliver relevant and coherent responses based on its training.[14-16]

Furthermore, ChatGPT can offer creative ideas and suggestions.[14,17-19] Whether seeking inspiration, brainstorming ideas, or requiring assistance with creative writing, ChatGPT can generate suggestions and contribute to the creative process.[14,17-19] It can be utilized for content creation, creative writing prompts, novel writing, screenwriting, and songwriting.[14,17-19] However, it is important to note that while ChatGPT can provide creative input, it lacks personal experiences and emotions typical of humans.[14,17-19]

ChatGPT is built upon deep learning, specifically the Transformer model, which forms the foundation for its capabilities.[1,20,21] The Transformer architecture incorporates self-attention mechanisms and feed-forward neural networks, enabling the model to understand the relationships and dependencies between words in a sentence.[1,20,21] Consequently, ChatGPT generates responses that are coherent and contextually relevant.[1,20,21] In simpler terms, ChatGPT's technology enables it to comprehend how words relate to each other and produce meaningful and appropriate text in response to prompts or questions.[1,20,21]

OpenAI follows a two-step training process for ChatGPT. The first phase, "pre-training," involves the model learning from publicly available text data, aiding in developing a foundational understanding of language patterns and concepts.[22,23] The subsequent phase, "fine-tuning," entails training the model on custom datasets created by OpenAI.[22,23] These datasets comprise specific examples, demonstrations, and comparisons to guide the model's behavior toward desired outcomes.[22,23] Fine-tuning allows OpenAI to refine and shape the model's responses, making it more reliable and suitable for various practical applications.[22,23]

During training, ChatGPT undergoes unsupervised learning, where it learns to predict the next word in a sentence based on the preceding context.[14,24-26] This process equips the model with an understanding of grammar, semantics, and even some reasoning abilities.[14,24-26] By training on a vast amount of text from the internet, ChatGPT develops a broad knowledge base covering a wide range of topics and information.[14,24-26] This extensive training enhances the model's ability to provide meaningful and knowledgeable responses informed by exposure to diverse linguistic patterns and concepts.[14,24-26]

ChatGPT is particularly well-suited for medical surveys due to its training on various internet texts, including medical literature and resources.[27-29] This training equips ChatGPT with knowledge of various medical topics, terminology, and concepts, enabling it to comprehend and generate text related to healthcare effectively.[27-29] It can provide explanations, answer questions, and offer insights based on its training, making it a valuable tool for gathering medical information and facilitating meaningful interactions within the context of medical surveys.[27-29]

Another advantage of ChatGPT for medical surveys is its conversational nature, which enables effective interaction with survey participants.[14,30-32] ChatGPT engages in dialogue, allowing back-and-forth exchanges to clarify questions, seek additional information, and gather detailed responses.[14,30-32] The model's ability to generate human-like text responses contributes to a more natural and interactive survey experience, enhancing participant engagement and potentially resulting in more comprehensive and accurate survey data.[14,30-32] In the medical domain, the conversational capabilities of ChatGPT can facilitate a dynamic and user-friendly survey process.[14,30-32]

Additionally, ChatGPT offers flexibility and customization capabilities for medical surveys.[25,33] Through OpenAI's fine-tuning process, the model can be trained on specific medical datasets, aligning its behavior and responses with the requirements of medical surveys.[25,33] This customization ensures accurate and relevant responses within the medical context. By tailoring ChatGPT to the specific needs of medical surveys, it can provide precise and valuable insights, thereby enhancing the overall quality and relevance of the survey results.[25,33]

USE OF CHATGPT IN SURVEY DESIGN

OpenAI's ChatGPT has received widespread acclaim as a significant breakthrough in natural language processing (NLP) due to its impressive performance across various language-related tasks.[34,35] Given that survey research is a commonly employed tool in social and medical sciences, the potential impact of Language Model Models (LLMs) in this domain could be substantial.[35,36] The significance of this impact has led to numerous analyses and articles, including the present manuscript. The central objective of our analysis is to explore whether generative AI can enhance survey research.[36]

Survey research is a methodology used to gather data from a subset of individuals using standardized questionnaires, commonly known as surveys or survey instruments.[37,38] Survey research aims to collect information about the attitudes, opinions, beliefs, and behaviors of the population under study.[37,38] This is achieved through closed-ended questions, which yield quantitative data, and open-ended questions, which yield qualitative data.[37,38]

The data collected from surveys undergo statistical analysis to identify patterns, relationships, and trends within the data.[39] Additionally, qualitative data is explored through various qualitative analyses to fully harness its extensive potential.[40]

Survey research is frequently used in medical research, epidemiology, public health, healthcare management, and other fields that require data on patient attitudes, behaviors, and healthcare outcomes.[36] survey analysis and reporting have recently incorporated machine learning (ML) techniques for research.[36]

LLMs have several applications in survey research:[36, 41-44]

- Designing the survey instrument: LLMs can assist in formulating clear questions, identifying inconsistencies, and suggesting appropriate response options. When crafting survey questions, LLMs play a vital role in ensuring clarity by providing alternative phrasing and illustrative examples to enhance comprehension. Additionally, LLMs contribute to the improvement of survey quality by detecting discrepancies within the survey instrument, such as contradictory or overlapping questions.
- Sampling: LLMs can recommend suitable sampling techniques and conduct intelligent interviews using conversational AI.
- Data cleaning and management: LLMs can analyze responses to detect inconsistencies and errors, ensuring data accuracy.
- Data analysis: Some individuals have utilized ChatGPT's Code Interpreter plugin to automate data analysis.
- Reporting and dissemination: LLMs capable of implementing data science code can assist in summarising and presenting survey findings.

GENERATING SURVEYS WITH CHATGPT!: A STEP-BY-STEP GUIDE

Step 1: Access the ChatGPT Website.

To begin, please navigate to the official ChatGPT website by clicking on the provided link: https://chat.openai.com.

Step 2: login in or make a new account.

Step 3: Interact with ChatGPT.

Upon reaching the website, you can seamlessly initiate the survey creation process by engaging with ChatGPT through its user-friendly interface.

Exemplary Medical Field Survey Requests:

1. General Health Survey: "Greetings ChatGPT, I am currently engaged in a health research project. Kindly assist me in formulating a comprehensive survey aimed at evaluating participants' overall health and lifestyle habits."—https://chat.openai.com/share/c2cb272d-29b5-43d7-99d8-8c0a240926af
2. Patient Satisfaction Survey: "Dear ChatGPT, I oversee a healthcare clinic and seek to gauge patient satisfaction levels. I request your support in devising a survey that effectively captures valuable feedback from our patients."—https://chat.openai.com/share/82fb4c29-6e2d-4656-bb33-cd3a46bdf0f4
3. COVID-19 Awareness Survey: "Hello ChatGPT, As part of a crucial public health initiative, I require a survey to assess public awareness and knowledge regarding COVID-19. Your insights into pertinent questions would be highly appreciated."—https://chat.openai.com/share/3efa183b-cb30-435d-861d-ef5ad62404cc
4. Mental Health Survey: "Respected ChatGPT, I am conducting research pertaining to mental health issues among adolescents. Your expertise in designing a survey to comprehend stress levels and coping mechanisms among this demographic would be immensely valuable."—https://chat.openai.com/share/28957c4f-3194-4327-97c5-1c26d61a387c
5. Medication Adherence Survey: "Dear ChatGPT, I am keen on studying medication adherence patterns in the elderly. I kindly request your assistance in formulating a survey that delves into their medication routines and identifies potential barriers to adherence."—https://chat.openai.com/share/b1a12e61-2e6e-46d4-84a6-967f503b43cc
6. Healthcare Technology Survey: "Greetings ChatGPT, I am currently undertaking research on the adoption of healthcare technology. Your expertise in crafting a survey to discern healthcare professionals' perspectives on utilising digital health tools would be immensely valuable."—https://chat.openai.com/share/220c3412-5343-44f6-80a2-9741931cdfa6

Rely on ChatGPT to optimise your survey generation process, facilitating seamless data collection for all your research pursuits!

USE OF CHATGPT IN SURVEY ADMINISTRATION

The utilization of ChatGPT in survey administration involves employing an AI chatbot, like ChatGPT, to facilitate interactive online surveys. Unlike traditional survey methods that require participants to fill out forms or respond to predetermined questions, the AI chatbot is responsible for posing inquiries and capturing responses.[45] Furthermore, AI chatbots have found applications in various fields. For example, Vito Bellini et al. (2020) developed the GUapp platform, which incorporates a chatbot integrated with a recommender system for job search and recommendations, thereby enhancing the user experience.[46] Paul Henman focused on deploying AI chatbots in the public sector, addressing challenges in public administration, and discussing governance and technical innovations to overcome them.[47] Rodsawang et al. devised an informative chatbot named "COVID-19 preventable" for the pandemic, providing reliable information through a question-and-answer system.[48] Fahad Mehfooz proposed a retrieval-based chatbot with voice support, exploring the usefulness of chatbots in assisting patients during the COVID-19 crisis.[49]

ChatGPT can enhance response rates in surveys compared to traditional methods.[50,51] By providing a conversational and interactive experience, the chatbot effectively engages participants, reducing the likelihood of survey abandonment and increasing the chances of survey completion.[50,51]

The interactive capabilities of ChatGPT can significantly improve user engagement throughout the survey process.[50-53] Participants will likely find it more captivating and enjoyable to interact with a chatbot rather than respond to static questions.[50-53] This heightened engagement can result in a more positive survey experience and potentially yield higher-quality responses.[50-53]

ChatGPT facilitates flexible and interactive data collection.[54,55] The chatbot can adjust its questioning approach based on participant responses, offering real-time feedback and personalized follow-up questions.[54,55] This adaptability creates a more customized survey experience and enables a deeper exploration of participant perspectives.[54,55]

ChatGPT utilizes Natural Language Processing (NLP) to comprehend and interpret participant responses.[36,56,57] It is proficient in handling various linguistic variations and nuances, enabling participants to express themselves more naturally.[36,56,57] This capability enhances the capture of more comprehensive and precise data compared to rigid multiple-choice or structured question formats.[36,56,57]

Convenience and accessibility are key advantages of using ChatGPT for online survey administration.[58,59] Participants can complete the survey at their own pace, regardless of location, as long as they have an internet connection.[58,59] The chatbot interface is compatible with multiple devices, such as smartphones, tablets, and computers, enabling participants to engage with the survey using their preferred device easily.[58,59]

DATA ANALYSIS FOR QUALITATIVE QUESTIONS WITH CHATGPT

ChatGPT has shown numerous implications in dealing with preliminary data. A study conducted by Strong et al. investigated ChatGPT's performance on clinical reasoning tests and found shared themes given to first- and second-year medical students from 2019 to 2022 using a language model.[60] There were 14 clinical cases chosen, and each exam had two instances with a 70% passing rate.[60] Each instance was run using ChatGPT twice, and two professors independently rated the responses.[60] 20 repetitions of the same high-complexity case repeatedly to measure ChatGPT's performance variation.[60] ChatGPT achieved a passing score of 70% or higher on 12 out of 28 runs (43%) across all cases, with an average score of 69%.[60] In the high-complexity case, it scored over 70% on 7 out of 20 runs (35%), varying performance across different clinical reasoning tasks.[60] The highest score was obtained on creating illness scripts (80%), while the lowest was on creating a diagnostic schema (62%).[60] This study thus illustrated the ability of ChatGPT to achieve the passing standard on open-ended clinical reasoning exams.[60] This accomplishment marks an important turning point for AI, opening new possibilities and difficulties in clinical reasoning.[60] Further, the effectiveness of AI and ChatGPT in addressing and spotting trends in open-ended inquiries about pathology has also been examined in further research.[61] In one such study, Sinha et al. showed that ChatGPT demonstrates an outstanding level of accuracy when addressing higher-order reasoning questions in pathology.[61] The output text from the program demonstrates meaningful links between distinct pieces through cogent linkages.[61] ChatGPT, which has an estimated accuracy rate of 80%, is a useful resource for academics and students who need help answering questions of this nature in their profession.[61] Additionally, an observational cross-sectional study conducted by Das et al. examined the ability and proficiency of ChatGPT in providing accurate responses and locating recurring themes to first- and second-order knowledge questions in microbiology.,[62] Which demonstrated that ChatGPT possesses the promising potential for answering both first- and second-order knowledge questions in microbiology.[62] With an accuracy rate of around 80%, ChatGPT is a valuable automated question-answering system for students.[62] Moreover, Fijačko et al. examined ChatGPT's performance in addressing scenario-based questions related to life support and resuscitation and spotting prevalent patterns.[63] The researchers specifically evaluated the accuracy of ChatGPT's responses in the context of the American Heart Association (AHA) Basic Life Support (BLS) and Advanced Cardiovascular Life Support (ACLS) exams.[63] However, ChatGPT did not meet the passing threshold for either of the exams.[63] Interestingly, in scenario-based questions, ChatGPT provided answers and offered insightful explanations to support its responses.[63] On average, the provided answers were highly relevant and accurate and aligned notably better with resuscitation guidelines.[63] ChatGPT has demonstrated promising potential as a robust reference and

self-learning tool, aiding in preparation for life support exams by identifying common ideas and concepts.[63] According to Zhu et al., using open-ended queries is more appropriate for ChatGPT's function as a chatbot and more realistic for situations where users rely on ChatGPT for life support expertise.[64] By using this strategy, ChatGPT can better handle recurring themes and threads in user conversations.[64] Accordingly, AI plays a crucial role in translational medicine by leveraging its capacity to analyze extensive datasets, detect hidden patterns, and identify trends that may elude human perception rapidly and accurately.[65] In this context, ChatGPT can contribute to analyzing large datasets, such as electronic health records or genomic data, to uncover insights and facilitate decision-making.[65] By utilizing ChatGPT, researchers and healthcare professionals can leverage its capabilities to identify potential risk factors for diseases, predict patient outcomes, develop personalized medicine approaches, and even aid in the discovery and development of new drugs and treatments.[65] ChatGPT's ability to analyze and interpret data provides valuable support in advancing translational medicine.[65]

BENEFITS AND LIMITATIONS

Using ChatGPT in medical surveys offers both advantages and disadvantages. One significant advantage lies in its availability as a free tool, enabling researchers from diverse backgrounds and varying socioeconomic statuses to utilize it without financial constraints.[10] This accessibility eliminates financial burdens and ensures researchers from different contexts can use it.[10] Furthermore, students in bioinformatics and research may encounter challenges such as limited access to tutoring, a lack of interactions with instructors, and difficulty forming study groups with advanced peers.[66] However, ChatGPT can alleviate this knowledge disparity as a learning tool.[66] Additionally, The ability to overcome language obstacles is an additional benefit of using ChatGPT in medical surveys.[67] Due to the chatbot's ability to accept and produce text in a variety of languages, this may help democratize knowledge.[67] ChatGPT enables the wider distribution of research findings by getting around the requirement of English-language competency, which can be a publishing barrier for non-English speakers.[67] Furthermore, van Dis et al. suggested that ChatGPT can accelerate innovation by increasing the efficiency of publication processes by assisting in surveys and offering design suggestions.[68] Additionally, it has the potential to foster equity and diversity in science by freeing up time for experimental designs and optimizing academic training and surveys.[68] This highlights the capacity of ChatGPT to enhance efficiency and inclusivity in scientific endeavors.[68]

On the other hand, employing ChatGPT in medical questionnaires has several disadvantages; a study showed that ChatGPT's responses showed sensitivity to minor changes in the wording of prompts, often demonstrating a different understanding of clinical reasoning terms compared to those used with students, necessitating the inclusion of explanations for certain terms.[60] Additionally, data availability on more specialized and complex topics might be insufficient, impacting the ability to interpret subtle responses.[69] Further, in many situations, there may be restrictions on the data that can be accessed, leading to limited availability or poor quality and inconsistency.[70] These factors can impact the accuracy and reliability of the results obtained.[70] Zhu et al. highlighted a limitation regarding the need for multiple responses.[64] They illustrated that generating only one response may introduce bias since the model does not consistently provide identical answers for the same question.[64] Van Dis, on the other hand, emphasized the possible drawbacks of using ChatGPT in surveys and research related to medicine.[68] These restrictions include lowered research quality, issues with transparency, the potential for the spread of false information, content inaccuracies, bias and plagiarism dangers, ethical issues, the possibility of future monopolization, and a lack of transparency.[68] Another limitation arises from ChatGPT's inability to access recent literature, as its knowledge is limited to information until 2021.[71] This constraint can result in the provision of outdated information when responding to certain survey questions.[71]

ETHICAL AND PRIVACY CONSIDERATIONS

AI discrimination, trust challenges, moral quandaries, and machine judgment compatible with human values are only a few of the ethical issues raised in the field of AI healthcare.[72] Mann et al. highlighted the ethical concerns surrounding the application of AI in translational medicine.[65] They emphasized the potential for discriminatory practices or favoritism towards specific patients, as the ethical soundness of AI algorithms relies on their creators.[65] These practices can potentially exacerbate healthcare disparities and erode public trust in the medical profession.[65] Three categories of ethical problems were discovered by Esmaeilzadeh et al. in their study: perceived privacy concerns, perceived mistrust in AI procedures, and perceived societal prejudices.[73]

1. The sensitivity of health-related data and the significance of protecting patient privacy are connected to perceived privacy issues.[74] Patient confidentiality is essential in healthcare and is linked to identity and well-being.[75] It is critical to safeguard patient privacy, stop improper data use, and get informed consent.[76] Psychological and reputational harm can result from failing to respect privacy needs.[77] When AI models share personal health data, there are worries about data breaches and reidentification hazards.[78] Implementing strong data encryption techniques, stringent access control guidelines, de-identification or anonymization of data, and routine audits of data handling procedures are some strategies to solve these problems.[79]

2. The use of AI technology in public health brings up Ethical concerns concerning privacy, governance, and safety in data collecting, storage, and sharing.[80] As personal data is kept and exchanged throughout AI networks, privacy is a major problem.[72] Patients expressed concern over collecting their private information without their consent.[74] As a result, perceived privacy issues have a favorable

effect on risks.[73] These issues can be addressed by encouraging transparency in the use of AI, outlining the role of AI algorithms, and explaining how AI is used to analyze data.[73,81,82]

3. Users' perceptions of inaccurate predictive and diagnostic models are called perceived mistrust in AI systems.[78] It is essential to establish confidence between the public and healthcare systems.[83] It is not easy to win the public's trust in AI implementation.[84]A lack of confidence in AI characteristics and transparency impacts 84 Adoption decisions.[85,86] Lack of comprehension of how AI gadgets work reduces trust and heightens perceived hazards.[84] As a result, perceived mistrust in AI mechanisms increases perceptions of risk positively.[72] Building trust can be facilitated by increasing transparency, outlining AI system limitations, and including regulatory and ethics committees in designing and evaluating AI medical surveys.[72]

4. Racial bias in AI models may cause them to overestimate the probability of crime for particular racial groups.[87] biased AI algorithms misjudge health risks due to prejudice in healthcare and stereotyping.[74] AI bias results from unrepresentative data and a lack of openness.[78] A complex framework is required for current AI systems to comprehend moral principles.[88] Lack of transparency can result in discrimination even when no people are involved.[72] Overrepresentation of social minorities in pattern recognition can lead to biases.[89] Decisions made by AI algorithms may be racially prejudiced as a result of biased coding.[90] Worries about immoral practices increase the perceived hazards of AI.[73] Therefore, perceived social biases favorably impact how dangers are perceived. As well as algorithmic fairness assessments, varied and representative training data, and ongoing evaluation of AI models for bias.[73]

CONCLUSION

In conclusion, ChatGPT, developed by OpenAI, is an advanced language model that generates human-like responses and facilitates conversational interactions. Training in extensive internet text, including medical literature, enables it to comprehend and generate healthcare-related text, making it a valuable tool in the medical field. By incorporating ChatGPT in survey administration, response rates can be improved, user engagement enhanced, and flexible and interactive data collection facilitated. This novel approach leverages AI chatbots to create a more engaging and personalized survey experience. However, ethical concerns must be addressed through privacy precautions, informed consent, transparency, bias mitigation, and stakeholder involvement. These measures ensure the protection of patient autonomy, data confidentiality, and the ethical use of AI in healthcare. With its power and versatility, ChatGPT has the potential to revolutionize medical surveys and enhance the quality and depth of data collection for better healthcare outcomes.

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