RESEARCH PAPER

Artificial Intelligence and Health-Seeking Behaviors of Educated Youth: A Critical Appraisal

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ABSTRACT

Artificial intelligence (AI) is advancing at an extraordinary pace to transform various modern fields of life including healthcare decision-making processes as well. Main Objective of the study was to unfold the unsighted use of AI in the critical field of health-care. It is a quantitative study, exploratory in nature, in the field of healthcare technology adoption. This study explored the habits of educated young ones for using techniques and having effects of AI for health-care. A survey of 200 participants disclosed that majority of the respondents found AI-based health tools valuable for quick advice and only 29% of them verified the information with a healthcare provider. Study showed that artificial intelligence works as a tool to assist healthcare delivery but it is not a substitute of doctor. It is recommended that some parameters must be laid out to limit the unguided use of AI in this perilous field.

| **KEYWORDS** | Artificial Intelligence, Youth Health Behavior, AI In Healthcare, and Health Literacy |

Introduction

The 21st century has seen a surge in applications of artificial intelligence (AI) in education, business, management, and healthcare. People have been using AI for drug development, personalized recommendations, telemedicine, symptom examination and diagnostic imaging in medical care (Topol, 2019). Students are utilizing ChatGPT, different health care apps and Chatbot for finding solutions of their queries. They are taking these AI tools as Remedy for All. The young residents of this planet are also heavily involved in Ai for their desired results.

Use of these AI tools for medical care is now very closely tightened with global digitalization. Having different android, mobiles, apps, software and online medical platforms has made very easy for users to create a medical library in his/her own device and take a necessary aid by medical practitioners for treatment purposes. These modern techniques and application have shifted and modified the access to doctors for appointment and it empowered youth in this regard.

Digital literate person is now using AI tools for diagnosing about deceases by putting the symptoms of patients and receiving medical prescription instead of vising any doctor's clinic physically. These AI results have transformed the journey for medical solution like a professional, such as WebMD, ChatGPT and Ada Health are best source for it and people are using these tools for medical care. It has become very beneficial for the people to avail

Fitness trackers and wearable devices monitor steps, sleep quality, heart rate, and calorie intake for medical reasons rather than long waiting in hospital for doctors in their appointment. These devices are very useful for a skilled and literate person and they are already involved in using technology in every walk of like, either for bank purposes, inline transport booking, or any other entertainment sources.

It is being encouraged to integrate AI in daily life as a health care tool but it has reflected the deepest psychological and culture change. The scholars of digital world

explored that today's youth is very optimistic with respect to technology. They look this advancement in technology as inherently useful and it often overlooked the potential risks and limitations.

Before we get into the discussion, it's important to understand how AI works. Natural Language Processing (NLP) algorithms allow AI tools to identify verbs, nouns, and other parts of speech. These tools also allow them to understand the nuances, idioms, and unique features that make up human language.

More importantly, Natural Language Processing NLP separates the most advanced AI tools for answering questions from regular chatbots that simply provide canned responses. NLP is at the heart of any modern AI tool and is key to enabling inclusive, informed, and interactive communication between people and the tools they use.

It is quiet alarming that use of Artificial intelligence in health-related issues is neglecting the objectivity, context of the problem and ethical consideration. People who seek help from AI in their health matters, usually are not capable enough to give the appropriate prompt but they believe that they have conveyed their exact condition to the machine. As a result, the reply may be accurate in context with their prompt but mismatching their actual health problem.

Discussion with a medical doctor adds numerous hidden symptoms only due to the cross questioning and physical examination of the patient.

For instance, if someone is seeking help from the Chatbot regarding headache, reply may consist of a number of reasons for headache but it would be quite difficult for the user to relate these accurately with his/her own condition. It might be due to stress, hunger, exposure to the excessive heat or cold, internal ailment because headache might be the outcome of any other condition.

It is a question of great concern that who should lead the healthcare front? Will it be a medical professional or Technology? Young people, who are more exposed to technology, gadgets and inventions, believe that they do not need the help of a professional when technology is doing everything with the touch of a finger. This blind belief, especially in health-related matters may be extremely alarming.

The success of AI depends solely on the quality of its data. AI technology can lead to misdiagnoses if there are errors or incomplete data sets for certain populations, diseases, or environmental factors. This is particularly true for prescriptions, where data on how certain populations respond to treatment may be limited. Healthcare professionals must recognize these data gaps and make necessary adjustments. Patients will always need an empathetic touch that AI does not provide. AI relies on pure logic and cannot act with the precision of humans. Patients need healthcare professionals who can understand behavioral cues and observations that can influence diagnosis and treatment.

This study attempted to draw attention towards the ethical and justified use of Artificial intelligence while seeking health for ailments, unhealthy conditions, diet planes and workout tips. This research holds that seeking answers for your illness or discomfort does not resembles a mathematical equation rather there are many other variables involved, which are usually overlooked and ignored.

Literature Review

AI systems are gradually being used in diagnostic support, mechanical surgery, personalized medicine, and patient monitoring. Research illustrates that AI tools can sometimes outstrip doctors in image-based diagnoses (Esteva et al., 2017). Though, their

reliability fluctuates depending on the quality of the data and algorithmic transparency (Amann et al., 2020).

Young, educated persons are true digital natives, effortlessly acclimatizing to new technologies (Prensky, 2001). They often turn to digital self-help methods, including AI tools, instead of traditional health advice (Nouri et al., 2019). While this shift offers convenience, it also brings the risk of misinformation. Even with their benefits, AI-driven healthcare platforms can't replace human doctors.

Research has raised valid apprehensions about algorithmic bias, privacy issues, and the potential for wrong diagnosis (Obermeyer et al., 2019). Plus, symptom screening tools can sometimes deliver overly broad or inaccurate results, leading to unnecessary worry or false reassurance (Semigran et al., 2015).

The existing literature published on AI in medical sector has a huge rating but its impact on youth has very high room for research and it has capacity to explore more logical knowledge. Many of the scholars has explores AI in term of diagnosing genomics, robotic surgery and imaging technology while they have overlooked the daily interaction of nonprofessionals with AI tools. So, it is very valuable to do a study on youth digital culture with respect to AI use in health care.

Topol (2019) explored AI as a modern soft power that can replace re-humanize as healthcare by giving them relief to do clinic as a task and it ensures more patients centered care.

Similarly, Esteva et al. (2017) describe that AI can be beneficial for dermatologists in categorizing skin treatment, highlighting important promise but, it is pertinent to note that these practices are being done on clinics, rather than consumer-oriented platforms like health apps and chatbots etc. It is need of the hour to explore the benefits of AI using in health care by youth rather than visiting clinic physically. It is the basic theme of this study to investigate how young people use mobiles, app and technology in term of AI for medical care. Other research points out the shortcomings of AI symptom checkers.

In a well-known review, Semigran et al. (2015) discovered that online symptom checkers only provided a correct diagnosis 34% of the time, and their triage advice was often overly cautious.

The literature peruses into some pretty important ethical and privacy issues. Obermaier et al. (2019) mentions how racial bias in AI training data can skew AI outcomes, putting minority populations at a disadvantage. When it comes to adolescents, privacy uncertainties ramp up since wearable devices and health apps often gather sensitive personal information, from heart rates to menstrual cycles, sometimes without clear consent.

Amann et al. (2020) stress that transparency and explainability in AI systems are critical for building user trust, yet several consumer applications don't really explain how they work. For educated youth, the attraction of these apps often surpasses privacy concerns, sparking debates about digital ethics and data exploitation. Cultural studies on adolescents also bring up the idea of digital natives (Prensky, 2001).

Educated young people are not just passive tech users rather they actively shape how technology fits into society. This also means that they are very curious to use AI tools in their daily life for diagnosing and treatment purposes.

Nouri et al. (2019) found that these patterns pointed out various structural imbalance access in healthcare while young people feel very easy to avail medical facilities

by AI tools rather than consuming money on treatment physical visit practitioners. This practice is very common in developing states where health structure is either very expensive or it has less equipped.

Keeping in view the existing literature, there is a mix picture of AI use in healthcare. Although AI has ability to transform health sector into digital world but there are lack of credibility and misuse of AI by youngsters in this regard. They can diagnose false deceases and mishandling while taking treatment on AI tools. This gap created a space and bound the researcher to explore the technical performance of medical health care, health education and cultural perceptions among young uses of AI.

Material and Methods

This study is quantitative in nature in which data was collected by 200 respondents of 18 to 30 years of age. They belonged to different education degrees like, Undergraduate and Postgraduates. Their demographics about belongings were rural and urban areas of Pakistan. Data was gathered through a structured questionnaire aimed at understanding various aspects of AI usage in healthcare. This tool measured how frequently participants utilized AI-based health tools, the specific types they relied on the most, and the benefits they believed these technologies offered. Additionally, the survey looked into participants' concerns and perceived obstacles when it comes to depending on AI for health-related decisions. Lastly, it inquired about how likely respondents were to verify AI-generated insights with professional healthcare providers, shedding light on the interplay between digital engagement and professional guidance.

Results and Discussion

Table 1
Frequency and Types of AI Tools Used for Health (N = 200)

AI Tool Used	Daily (%)	Weekly (%)	Occasionally (%)	Rarely/Never (%)
Symptom checkers (WebMD, Ada)	25	38	27	10
Chatbots (ChatGPT, etc.)	19	42	29	10
Fitness/wearable apps	32	28	25	15
Telemedicine apps	12	20	35	33

Table 1 explains that Symptom checkers and chatbots dominate AI usage, reflecting reliance on quick, free solutions. Wearable apps are also prevalent, while telemedicine is less used due to cost factor.

Table 2
Perceived Benefits of AI Health Tools (N = 200)

Benefit Reported	Agree (%)	Neutral (%)	Disagree (%)
Quick access to health information	82	10	8
Saves time and money	76	14	10
Provides accurate guidance	61	22	17
Encourages self-care	68	20	12

Table 2 highlights that Youth overwhelmingly value speed, convenience, and cost-effectiveness. However, fewer strongly trust AI for accuracy.

Table 3
Reported Harms and Concerns (N = 200)

Harm/Concern Reported	Frequently (%)	Sometimes (%)	Rarely/Never (%)
Increased health anxiety	38	33	29
Delay in consulting professionals	29	36	35

Privacy and data security concerns	47	31	22

Above Table elaborates that nearly half the respondents worried about privacy and misinformation. Over-reliance led to misdiagnosis and delayed medical care in a significant portion of cases.

Discussion

The findings from this study reveal that educated young adults are turning to AI health tools in droves, drawn in by their speed, accessibility, and convenience. Many participants shared that symptom checkers, chatbots, and fitness apps empower them to tackle everyday health issues without needing to consult a professional directly. This trend indicates that AI tools are increasingly viewed as an extension of personal health knowledge, giving individuals a sense of autonomy in managing their well-being.

However, this research raises a concerning paradox. Good points that make AI appealing, like rapidness and easy to use, also introduce important weaknesses for young people. Results of the study reveals that for minor health concerns, youngsters found AI very beneficial. They found it easier to peruse AI rather to consult a medical doctor. There were even such cases who changed their intentions to visit the doctor and cancelled the appointments only due to the feeling that AI responded well to address their issues and there is no need to further investigate the matter by going to the medical professional.

Results of the study suggest that the major reason behind this behavior is the emerging digital medicine mindset. Obviously, this culture is not adopted for medical issues only but it is the part of the larger digital culture where youth is considering the technology as prompt reliever in every aspect of life. It is basically a mindset, for which youth cannot be blamed. They are not able to or willing for differentiation between a common life hack and health tips.

This practice for taking the technology for granted cannot be restricted by force. Solution is to train and educate the young ones through the same mode which is their favorite i.e. technology. Since they believe the AI as their ultimate master so massages generated through AI and disseminated through technology may work to give them better, the severity of the matter.

Conclusion

It can be concluded with the help of results of this study that Use of gadgets and Artificial intelligence may be remarkable useful especially for educated youth but there should be a sense of responsibility while addressing the critical issues like healthcare. For this purpose, education regarding use of AI and handsome knowledge of the basics of that subject for which someone is seeking help from AI is compulsory. Moreover, rules and regulations should have been grafted for the use of Ai as well because one cannot be allowed to use it blindly, especially when youth is considering it as ultimate solution for every problem.

Recommendations

- Educational Initiatives: Universities should integrate digital health literacy into curricula.
- Policy Development: Governments should regulate health-related AI tools for accuracy and data security.
- Balanced Usage: Youth should be encouraged to treat AI as a guide, not a definitive medical authority.

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