



Examining the differences between how doctors and artificial intelligence chatbots handle patient symptoms

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Introduction

Seeking medical counsel while experiencing worrying symptoms is essential for accurate diagnosis and treatment. Patients may now choose between human doctors and chatbots powered by artificial intelligence (AI), thanks to the proliferation of digital health services. The purpose of this essay is to evaluate how human doctors and AI chatbots handle patient complaints^[1].

Response from doctors

Because of their training and experience, doctors know how to provide patients the most accurate assessment of their symptoms. When making a diagnosis, they take into consideration the patient's medical history, physical examination, and test results.

The doctors who responded stressed the need of a tailored strategy. They pay close attention to the patient as they describe their symptoms, follow-up with pertinent inquiries, and consider any other circumstances that may be relevant to the patient's condition. They use their knowledge and experience to provide recommendations and suggest courses of action that are specifically designed for the individual patient.

Doctors are there for their patients in more ways than one. They have compassion for their patients and are able to reassure them, since they understand the worries that accompany symptom experience. Concerns may be allayed, symptom

origins explored, and next steps in diagnosis and treatment outlined.

AI answers in chats

Algorithms and machine learning fuelling AI chatbots have the potential to give immediate, automated replies to patient symptoms. They examine extensive medical databases to find a probable explanation or advice by matching the symptoms to predetermined patterns or decision trees^[2].

Artificial intelligence chatbots are capable of providing instantaneous replies and fielding many enquiries at once. They provide standardized data on the basis of medical data-derived statistical probability. Many prevalent disorders are linked to specific symptoms, so chatbots may make educated guesses about possible causes and broad advice for managing symptoms^[3].

But there are restrictions on what kinds of questions an AI chatbot can answer. They may not be able to take into consideration the subtleties of specific patients' conditions or appreciate the complexities of their symptoms. Unfortunately, correct diagnosis typically requires a physical examination or the ordering of diagnostic tests, neither of which these people can do. They may also not have access to the whole medical history of the patient, which might affect the reliability of their assessments^[4].

Response analysis

Responses to patients' symptoms must be accurate, reliable, and patient-specific. Physicians are trained to take into account several indicators while making a diagnosis, such as patient history, physical examination findings, and diagnostic test results. They provide recommendations and treatment strategies that are uniquely developed for each patient Table 1.

Doctors are also experts at gaining their patients' trust and emotional support. They may help patients feel heard and understood by addressing their worries, providing answers, and guiding them through the diagnostic procedure. The personal touch and compassion shown by doctors are crucial to the healing process.

Conversely, AI chatbots may be helpful for basic triage and general health information because of their speedy answers. They may utilize statistics to provide insight into the causes of symptoms. Their advice should be taken more as a starting point for further investigation than as a final diagnosis.

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Table 1

Comparison of physician and AI chatbot responses to patient symptoms.

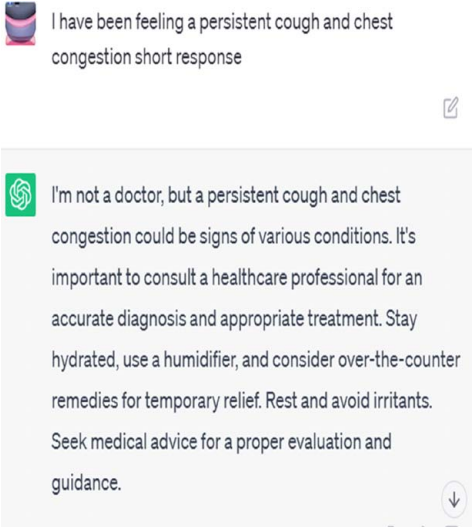
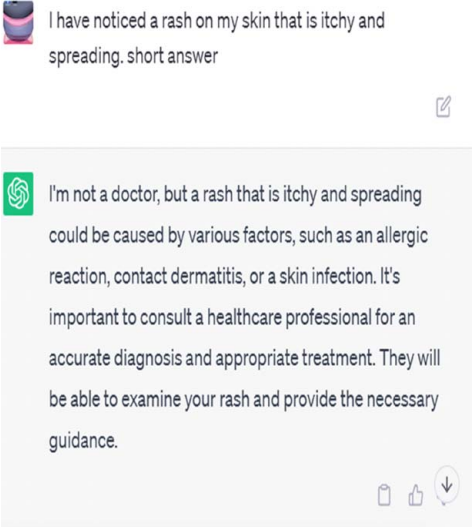
Patient symptoms	Physician response	AI chatbot response
Patient: I have been experiencing persistent headaches.	Persistent headaches can have various causes, such as tension headaches, migraines, sinusitis, or underlying health conditions. It is important to consult with a healthcare professional who can evaluate your symptoms, perform a physical examination, and recommend appropriate diagnostic tests [3].	 <p>I have been feeling a persistent cough and chest congestion short response</p> <p>I'm not a doctor, but a persistent cough and chest congestion could be signs of various conditions. It's important to consult a healthcare professional for an accurate diagnosis and appropriate treatment. Stay hydrated, use a humidifier, and consider over-the-counter remedies for temporary relief. Rest and avoid irritants. Seek medical advice for a proper evaluation and guidance.</p>
Patient: I have noticed a rash on my skin that is itchy and spreading.	A rash that is itchy and spreading can have several causes, including allergic reactions, skin infections, or dermatological conditions. It is advisable to consult a dermatologist for a proper evaluation, as they can examine the rash and provide an accurate diagnosis and appropriate treatment.	 <p>I have noticed a rash on my skin that is itchy and spreading. short answer</p> <p>I'm not a doctor, but a rash that is itchy and spreading could be caused by various factors, such as an allergic reaction, contact dermatitis, or a skin infection. It's important to consult a healthcare professional for an accurate diagnosis and appropriate treatment. They will be able to examine your rash and provide the necessary guidance.</p>



Table 1
(Continued)

Patient symptoms

Physician response

AI chatbot response

 I have been experiencing persistent headaches.” short answer 

 I'm not a doctor, but persistent headaches could have various causes, such as tension headaches, migraines, sinus issues, or underlying medical conditions. It's important to consult a healthcare professional for an accurate diagnosis and appropriate treatment. They can evaluate your symptoms, medical history, and conduct any necessary tests to determine the cause of your headaches and provide appropriate guidance. 

Conclusion

Doctors' knowledge and attention to detail are irreplaceable when it comes to treating patients' ailments. AI chatbots cannot replace doctors because they lack the depth of knowledge, clinical expertise, and interpersonal skills that doctors bring to the table. Accurate diagnosis and treatment are guaranteed by their capacity to think about the patient's medical history, conduct physical examinations, and order diagnostic testing.

AI chatbots may be convenient for their speed and broad insights, but they are no match for a human doctor's in-depth knowledge and individualized attention. Patient happiness and health depend critically on the human aspect of healthcare, which includes things like empathy, emotional support, and the capacity to adjust to each individual's circumstances.

Artificially intelligent chatbots may one day play a role in the provision of rudimentary information and direction as technology progresses. Patients must see competent doctors for proper diagnosis, individualized treatment programs, and the kind of attention they deserve. The integration of AI technology with medical professionals has the potential to improve patient care by striking a good technological/human balance.

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Author contribution

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reviewing and editing, visualization, supervision. T.B.E.: writing—reviewing and editing, visualization.

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Authors declare that they have no conflicts of interest.

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Data statement

The data in this correspondence article are not sensitive in nature and are accessible in the public domain. The data are therefore available and not of a confidential nature.

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