ChatGPT Versus Medical Professionals

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Classical medical chatbots use Artificial Intelligence (AI) and natural language processing basically to fulfil the requirements of users and give responses accordingly.[1] They are always on improving mode by collecting their feedback and performance data. All this can be achieved through human-designed and well-maintained database, which is the main task of creators.[1] Large language models, such as ChatGPT, use deep learning (DL) which are capable of reproducing similar to human-like way. It can be variety of roles and one of it can be introduced in patient care by assisting patients in communicating with healthcare workers and with each other.[2] It is hard to remember a time before people could turn to 'Dr. Google' for medical advice. Now, ChatGPT and other language processing tools can be used for medical care which will provide the health related problems and their treatments in layman languages so that it will be easy to understand being a language non-expert.[3] this brings us to, WHAT IS ChatGPT? ChatGPT is a kind of language model which converts text-based inputs into human-like responses and it is developed by OpenAI. It is a highly advanced chatbot that is capable of holding complex conversations, understand context and produce appropriate responses.[4] ChatGPT is a novel, impressive, apt technology but being one of the disruptive kind, it also carries risks as it can't recognise complex terminologies and aspects in respect to medicine.[1] Bill Gates, believes that ChatGPT will 'change the world', evidencing that AI is just as important as the PC and the internet. ChatGPT which was introduced in November 2022, has astonished the world with its potentials like passing law exams at the University of Minnesota and the University of Pennsylvania's Wharton School of Business, writing feature-length articles and full websites coding.[5] ChatGPT – the GPT stands for Generative Pre-trained Transformer – which is an AI platform from San Francisco-based startup OpenAI which is a free online tool which helps in solving any questions you name it and it will answer it.[3] In spite of all these qualities of ChatGPT, it can't replace live, intelligent and skilful medical professionals. As anyways there is a difference in machine and human being as everything can't be databased like emotions, skills, situational decisions and few are subjective also. There is nothing like all or none phenomenon, few things the professions can do on a trial basis acknowledged regarding medicine.[1] Applications of it are (1) ChatGPT has ability to give guidelines in context to potential drug interactions flagging, suggestions for varied treatment options which streamlines the clinical diagnosis. (2) ChatGPT can help in medical record keeping as it is the backbone of any hospital administration. (3) It also helps in selection of subjects on selection criteria for clinical trials, so it reduces the burden of choosing the subjects for trial. It can keep records of such subjects which helps researcher for further following up task. (4) As ChatGPT helps in accessing vast information regarding medical healthcare as it can answer any questions, you name it and it will have it, which eventually helps in personal growth of medical professionals. As each new technology has pros and cons how can ChatGPT will escape from this. So, few preventive measures should be taken to avoid wrong decisions to be taken.[5] Users should have an idea about all the limitations and risks while using these chatbot. Medical ethics has a major role in doing scrutiny of these chatbots on ethical platform providing its availability to the medical professionals. ChatGPT can also serve as patient-oriented app, which allows them book appointments and obtain knowledge with which disease they are suffering from. It also serves as a good pathway for treatment protocols and various policies. However, as of now ChatGPT is under the stage of processing but the day it will definitely change the healthcare system.[1] So, use of such chatbots in healthcare will need meticulous care to avoid urge to bypass medical advice. Ultimately, we can say that use of DL-based language models should be done in a very constructive and regulatory manner so that it will help in improving quality of life for many patients, but of course keeping in mind these novel platforms as a supplement not as a substitute for human expertise.[2]

Author Contributions

Dr Jyoti Ajagunde: Main conceptual idea and Proof writting, Dr. Nikunja Das : Critical feedback and shaping the manuscript

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