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| Journal Name: | [**Asian Journal of Probability and Statistics**](https://journalajpas.com/index.php/AJPAS) |
| Manuscript Number: | **Ms\_AJPAS\_137634** |
| Title of the Manuscript: | **Artificial Intelligence in Healthcare: A Systematic Review of Virtual Healthcare Assistants** |
| Type of the Article | **Original Research Article** |

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| PART 1: Comments | | |
|  | Reviewer’s comment **Artificial Intelligence (AI) generated or assisted review comments are strictly prohibited during peer review.** | **Author’s Feedback** (It is mandatory that authors should write his/her feedback here) |
| **Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part.** | I found the manuscript significant for the scientific community, as it provides a comprehensive and well-structured review of AI-based healthcare assistants. It is not only valuable for the scientific community, but it also informs other readers about virtual health assistants with clear and informative presentation. It identifies both the benefits (improved accessibility of healthcare globally) and the limitations, such as ethical, technical and regulatory challenges that arise from virtual health assistants. Through the review of various studies and real-life applications, it creates valuable knowledge for future research and development of AI-based systems in healthcare. |  |
| **Is the title of the article suitable?**  **(If not please suggest an alternative title)** | Yes |  |
| Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here. | Yes, it effectively introduces the topic and its relevance in improving the healthcare system. It also sets some examples like Alexia and Siri and their potential applications in healthcare. However, the abstract lacks methodological details, which is common in most systematic reviews. This helps the reader understand the scope of the review. Additionally, it lacks a statement of the findings of the systematic review and the limitations of VHAs in healthcare, which is very important to keep the balance of the article. I suggest the addition of 4–6 sentences addressing the issues above. |  |
| Is the manuscript scientifically, correct? Please write here. | Yes, it is scientifically correct in both the artificial intelligence perspective and healthcare perspective. It accurately presents AI technologies like natural language processing and reinforcement learning, while aligning them with real-world healthcare challenges and solutions. |  |
| **Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.** | Yes |  |
| Is the language/English quality of the article suitable for scholarly communications? | Yes, the language quality is overall suitable for scholarly communications. However, I recommend proofreading to fix some grammatical issues especially in the body section of the manuscript, to improve readability. |  |
| Optional/General comments |  |  |

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| **PART 2:** | | |
|  | Reviewer’s comment | **Author’s Feedback** (It is mandatory that authors should write his/her feedback here) |
| **Are there ethical issues in this manuscript?** | *(If yes, Kindly please write down the ethical issues here in detail)* |  |

**Reviewer details:**

**Yonas Getenet Bekele, United World Colleges (UWC International), United Kingdom**