L-Università ta' Malta
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GENERATIVE ARTIFICIAL INTELLIGENCE IN PHARMACY EDUCATION

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INTRODUCTION

Generative artificial intelligence (Gen-AI) is rapidly influencing processes within healthcare and education. Potential opportunities of adopting Gen-AI within pharmacy education are being put forward to improve learning outcomes and enhance competency development. In parallel, dilemmas and challenges present which require addressing.

AIMS

To analyse evidence in literature and assess practitioners' views on use of Gen-AI in pharmacy education

METHOD

A systematic literature review was conducted from open access journal resources published between 2021 and 2025 on Google Scholar, ResearchGate and PubMed, using the PRISMA framework

A thematic analysis was undertaken

A focus group discussion was organised with pharmacists and academics (n=4) to identify their perspectives and compare with the literature findings

RESULTS

- **Literature review resulted in 250 articles which were screened and led to 73 articles that were included in the thematic assessment.**
- **Five themes were identified through the literature review(Figure 1).**
- **The focus group discussion agreed with the themes identified and provided a stronger insight on:**
  1) the ethical aspects, particularly related to confidentiality of data included in Gen-AI software and the concern that students and users require awareness of ethical use
  2) need to support users (students and academics) to use Gen-AI as a tool to generate powerful outcomes whilst retaining the critical thinking competence development.

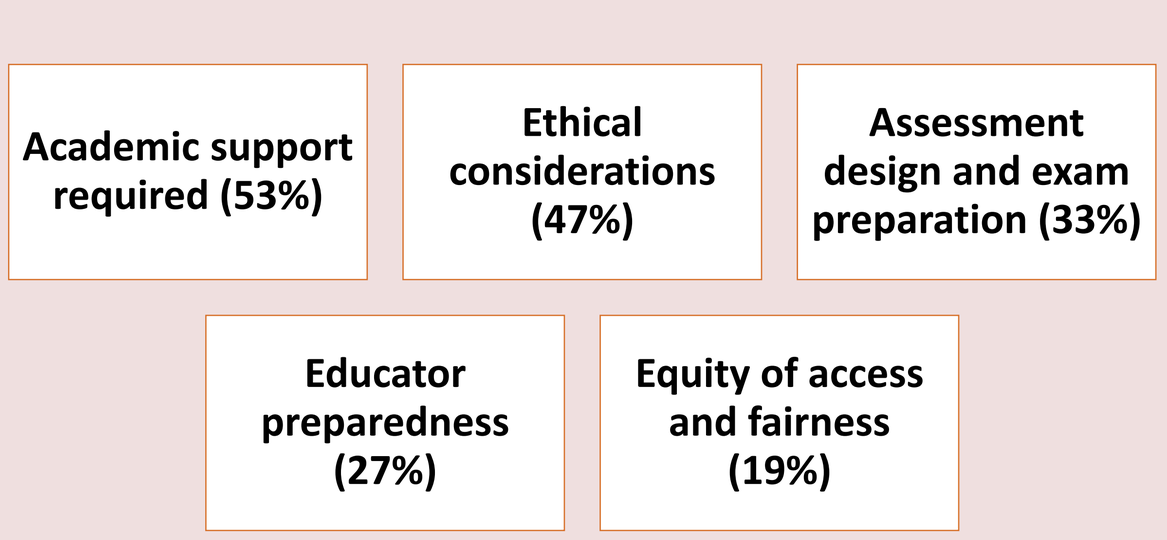

Figure 1: Themes identified through literature review and occurrence in articles.

CONCLUSION

The findings expose opportunities for the application of Gen-AI in pharmacy education whilst highlighting reflections about concerns and limitations. Developing policy frameworks and guidelines supports institutional readiness to support the development of pharmacy graduates who are ready to leverage opportunities of Gen-AI within ethical and purposeful contexts.