Scoping review on lead user engagement methods in the development of telemedicine products

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There has been a major increase in the development of new telemedicine products post the Covid-19 pandemic. The need for these products continues to rise due to the expansion of the ageing population and the desire to have robust health systems that can cater to large populations. However, the success of these telemedicine products largely depends on their acceptance by users. The acceptance rate of products is arguably directly proportional to meeting user needs, ease of use and user comfortability to adopt the product. The latter is affected mainly by a large population expecting a walk-in service for medical attention, hence sidelining telemedicine products. A larger part of the world population does not yet trust the effectiveness of telemedicine products. To improve the adoption of these products, users need to be involved in their development. This increases the ability of products to meet end-user needs, hence their adoption. In this paper, we focus on how we can involve lead users in healthcare in developing telemedicine products. We termed these as "engagement methods". The aim is to highlight different engagement methods that can be used in different telemedicine product development scenarios. The results of this study help developers in the selection of an effective engagement method per development stage. Selecting the proper engagement method enables developers to utilise the lead user expertise in telemedicine product development fully. We also used content coding to identify the research gaps in the literature and postulate possible avenues for future engagement methods in new product development (NPD) in telemedicine. The research followed a structured literature review through the PRISMA protocol. The search strategy included analysing published articles from prior health research. Articles were retrieved from three (3) databases: Scopus, Web of Science and PubMed. Titles, abstracts and full texts of retrieved articles were screened for relevance and duplication. Inclusion was limited to health research articles that report on lead user involvement at least at one stage in new product development. The study provides scholars and practitioners with original and valuable contributions to the present literature on engagement methods in telemedicine product development.