Addressing accessibility crisis: A gerontechnology education project among patients in a Hong Kong hospital setting

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Purpose Gerontechnology is an innovative solution that plays an important role in promoting patients' independent living, reducing institutional care, and alleviating caregiver burden. However, one of the major crises hindering its wide acceptance and utilization in Hong Kong is poor accessibility, preventing end-users from acquiring knowledge about gerontechnology products and purchase methods (Our Hong Kong Foundation, 2021). Our project aims to address this gap by promoting patients' gerontechnology knowledge and acceptance through education while identifying their needs to maximize utilization. **Method** Patients with physical or mental illnesses, at Tai Po Hospital, Hong Kong, who had an assessed need for gerontechnology, were recruited in the project. Occupational therapists provided single 20–30-minute face-to-face education sessions, individually or in groups, with multimedia support to introduce gerontechnology and its products, including selection and purchase methods. Pre- and post-education surveys were conducted using a 0–10-point rating scale to assess changes in knowledge and acceptance. Patients' keenness towards product trial use services and their preferred products were also investigated. **Results and Discussion** 70 patients (Female, n=49) were recruited from August to November 2023. 46 participants were of age ≥60 and 24 were of age <60. Regarding knowledge changes, participants in both the older age group (≥60) and the younger age group (<60) showed significant improvements in self-perceived knowledge of gerontechnology (age ≥60, Z=-5.72, p<.001; age <60, Z=-4.30, p<.001), product features (age ≥60, Z=-5.22, p<.001; age <60, Z=-4.07, p<.001), selection methods (age ≥60, Z=-5.08, p<.001; age <60, Z=-4.11, p<.001), and purchase methods (age ≥60, Z=-4.31, p<.001; age <60, Z=-4.12, p<.001). Further analysis on knowledge improvement between the two age groups revealed that the younger age group exhibited significantly greater improvement compared to the older age group across the same knowledge categories: gerontechnology, Z=-3.05, p=.002, product features, Z=-2.68, p=.007, selection methods, Z=-2.29, p=.022, and purchase methods, Z=-2.99, p=.003. This result indicated that while gerontechnology education is beneficial to older patients, further education could also be targeted towards younger patients or those in the pre-elderly stage, as they demonstrated higher levels of knowledge acquisition towards gerontechnology. Providing early education could promote effective utilization of gerontechnology in their future. Regarding acceptance changes, both age groups showed significantly enhanced acceptance of gerontechnology, as evidenced by their increased readiness to use (age ≥60, Z=-2.46, p=.014; age <60, Z=-3.19, p=.001), and purchase (age ≥60, Z=-3.13, p=.002; age <60, Z=-3.14, p=.002), the products. The improvement in acceptance was not significantly different between two age groups, indicating the project's comparable effectiveness in enhancing gerontechnology acceptance among patients of various ages. Furthermore, 50% of participants expressed positive attitudes (rating ≥6) towards product trial use services to enhance purchase readiness. Popular products including smartwatches, sensor lights, and smart pill boxes were identified, highlighting the potential benefits of incorporating trial use services for these products to facilitate widespread utilization. In conclusion, gerontechnology education is crucial for addressing the accessibility crisis and enhancing knowledge and acceptance among end-users. Introducing new targeted promotion initiatives and focusing on specific products can maximize utilization and contribute to the sustainability of the gerontech ecosystem.

References

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