

Appendices

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Appendix A

Primary Research

A survey was sent out during this project which asked whether or not individuals believed that the use of mobile health applications and devices could save a user's life. The research helped to aid the design process by highlighting the most used features of Mhealth applications, as well as showing the popularity of using smartwatches to track health. This data showed that it was crucial to also design a smartwatch interface due to the high usage trend within the data.

All questions were closed-ended. According to SmartSurvey(n.d.), this style of question tends to avoid any confusion and overthinking of answers, as data from closed-ended questions are easier to compare and analyse. However, each question had an 'other' option, which gives the participants a chance to put an alternative answer. As the survey was quantitative, the data will be analysed for any trends and patterns. This method is also highly suited for the data needed to be collected because it will clearly demonstrate any links between Mhealth applications and saving lives.

First of all, the dominance of the 18-25 age group in the study implies a higher level of familiarity with technology among younger individuals. This trend reflects that younger generations are early adopters of mobile health technologies. The range of reported technology usage indicates that engagement with these technologies varies among participants. While the majority use them daily, others do not use them at all. This highlights the diversity of user behaviours and technology engagement. Furthermore, the high percentage of participants utilising smartwatches over mobile health apps illustrate a growing trend towards wearable technology integration for health monitoring and

management. This data shows that smartwatches are dominating over Mhealth applications due to their wearable design and continuous health monitoring.

The data gathered identifies a notable preference for fitness tracking among participants, indicating a shift towards proactive health management. While fitness tracking empowers users to control their health and make lifestyle changes, the low usage of medication reminders presents an area of improvement. The results demonstrate that participants perceive mobile health technology positively, recognising its potential to improve health outcomes. My findings highlight the significance of mobile health technology in healthcare and show that further research is needed to understand factors which influence non-usage and enhance effectiveness.

Looking forward, further research could benefit the progression of this project. For instance, investigating the reasons behind the proportion of survey participants who do not use Mhealth apps. This research can provide insights into the opportunities for improving app accessibility and usability. A significant proportion of participants reported a positive change in their health since using mobile health apps. Further research could analyse the long-term health outcomes associated with app usage. Studies could evaluate the impact of mobile health usage on behaviours, health outcomes and quality of life over time.

Despite the promising design and research, there may be pitfalls when it comes to developing a mobile health application. For instance, privacy and data security because these apps often collect sensitive information from users, such as medical history. Ensuring the privacy of this data is crucial to maintain user trust and to comply with GDPR. Users also need to be provided with clear information about how their data will be

collected, used and shared within the application. This will ensure that their rights are respected. These applications should provide reliable information to users to support decision making about their health. Developers will need to ensure that the app content is evidence-based and regularly updated to reflect the latest medical guidelines.

Furthermore, the potential that mobile health technologies have to save lives in emergency situations highlights a promising area for further research. Studies could explore the effectiveness of emergency response features within these technologies such as alerts, emergency contact notifications and the integration with emergency services. This research can assess their usability, accuracy and its impact on emergency health outcomes.

Appendix B

mHealth Definition

mHealth (mobile health) is a general term for the use of mobile phones and other wireless technology in medical care (Holman, 2018).

