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Population Health and Digital Health Promotion

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Part a - Blog

Part b – Poster Design

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TASK 1

Blog 1- Critically discuss the impact of an existing digital technology currently used for a digital health promotion intervention

Global problems with health have received a lot of attention, particularly those that are connected to illnesses of mental health. Persons generally are affected by anxiety and depressive disorders, which may have a number of detrimental impacts. Digital technology, like mobile apps, has recently shown promise as potentially a tool for initiatives aimed at promoting health (Gomes *et al.*, 2021). This blog analyses the effectiveness of mobile apps in treating emotional issues.

Public health issue: Worldwide rates of disorders of the mind, such as depressive disorders, anxiety, and illnesses caused by stress, have risen alarmingly.

Mobile applications' role in promoting health:

A practical and available forum for advocating for psychological wellness is provided by smartphone applications. These applications offer an extensive variety of functions, such as telephone therapy discussions, lessons, relaxing approaches, mood following, and tools for self-assessment.

"ActiveMe." *Mobile applications* have reportedly demonstrated beneficial impacts in supporting psychological wellness. This is confirmation that suggests modern technology promotes psychological wellness. Using Smartphone programs to treat anxieties and depression significantly reduced the degree of symptoms and enhanced emotional well-being.

Benefits of Mobile Devices for Promoting Health:

Accessibility: People who might lack access to regular medical facilities owing to physical or geographic constraints can still get rapid access to behavioral health options thanks to Smartphone applications (Chen *et al.*, 2023).

Cost-effectiveness: Smartphone are an economical option for population-wide wellness initiatives since they possess the ability to provide psychological care at a lower cost than traditional therapies.

Mobile applications' drawbacks/deficiencies in promoting health:

Absence of scientific support

While several apps for mental wellness have shown promising results, many lack scientific validity and rigor. These applications range widely in terms of both quality and efficacy.

Addressing the Shortcomings: Multiple techniques can be used to solve the shortcomings of mobile apps for promoting health:

Normative principles: It is possible to guarantee the caliber, effectiveness, and data security of behavioral health apps by setting explicit legal guidelines and standards.

Treatments based on data: The legitimacy of apps for mental healthcare can be raised by persuading producers to include treatments that are scientifically proven and by undertaking extensive studies on how they work.

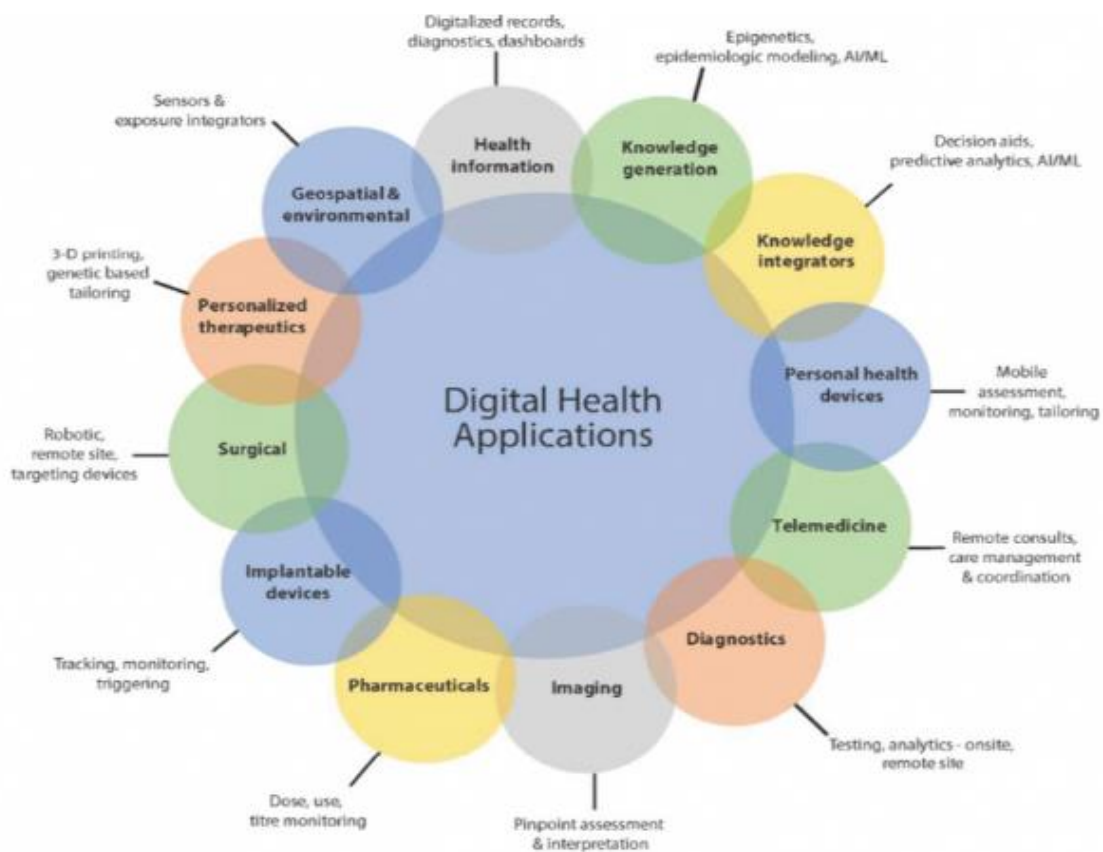


Figure: 1 Application of digital technology in healthcare

Source: edu, 2022

Blog 2- Critically discuss the impact of a digital technology you designed for a digital Health promotion intervention

Sedentary habits and a lack of sport have raised more and more public health issues. This blog critically examines the effects of a Smartphone application website created to encourage inactive people to get out there more. A number of detrimental health impacts are greatly exacerbated by physical inactivity, which has become a worldwide problem (Morris et al., 2022). The danger of contracting long-term diseases like coronary artery disease, type-2 diabetes, and mental health issues increases during prolonged moments of idleness and boredom, such as prolonged sitting.

Designed digital technology description:

Telemedicine services could be provided via a website like HealthPlus, allowing patients to get healthcare guidance and consults from a distance. Individuals in areas that are underserved or remote could especially profit from this because it will increase their access to healthcare services.

Usage in Healthcare Promotion: Elements in HealthPlus may encourage people to become more involved in managing their health. And encourages sedentary people to partake in frequent physical activity to combat the public wellness problem of physical lethargy. This might include the availability of learning materials, meeting, and prescription reminders, including personalized health data, all of which would improve the quality of life. Appointment scheduling, managing prescriptions, and storing health information are just a few of the activities that the software might digitize and improve in the healthcare sector. It can improve the overall effectiveness and lessen the administrative strain on healthcare practitioners (Morris et al., 2022).

Benefits

Accessibility: People can use HealthPlus whenever and wherever they like to know about healthcare into their schedules.

Privacy and security of data are essential components of any electronic health platform. In order to safeguard confidential patient knowledge and adhere to applicable privacy laws, HealthPlus will have to take strong measures. To guarantee a continuum of service and prevent duplicate data or dispersion, HealthPlus must be able to communicate smoothly with already-existing medical facilities, including digital health

records (EHRs). Designing the user experience would be crucial to HealthPlus's performance. It needs to be simple to use, instinctive, and open to users of every age and skill level. HealthPlus will have to follow healthcare standards for interoperability in order to reach its full capability. This would allow for easy data transmission across various healthcare systems and providers of services, promoting thorough patient care (Richardson et al., 2022).

Disadvantages/Shortfalls:

Technological Obstacles Since the website's efficacy depends upon users having access to an internet connection, people with insufficient means or little digital literacy may be excluded.

Impact Of Digital Technology

By strengthening patient participation, expanding access to care, streamlining procedures, and fostering better medical outcomes, an internet-based healthcare network like HealthPlus might have a profound effect on the medical industry. However, resolving crucial issues including data protection, customer experience, connectivity, physician uptake, and moral considerations would be necessary for it to be successful. It would require thorough planning, cooperation, and continuing evaluation to maximize any possible advantages while minimizing any dangers and problems.

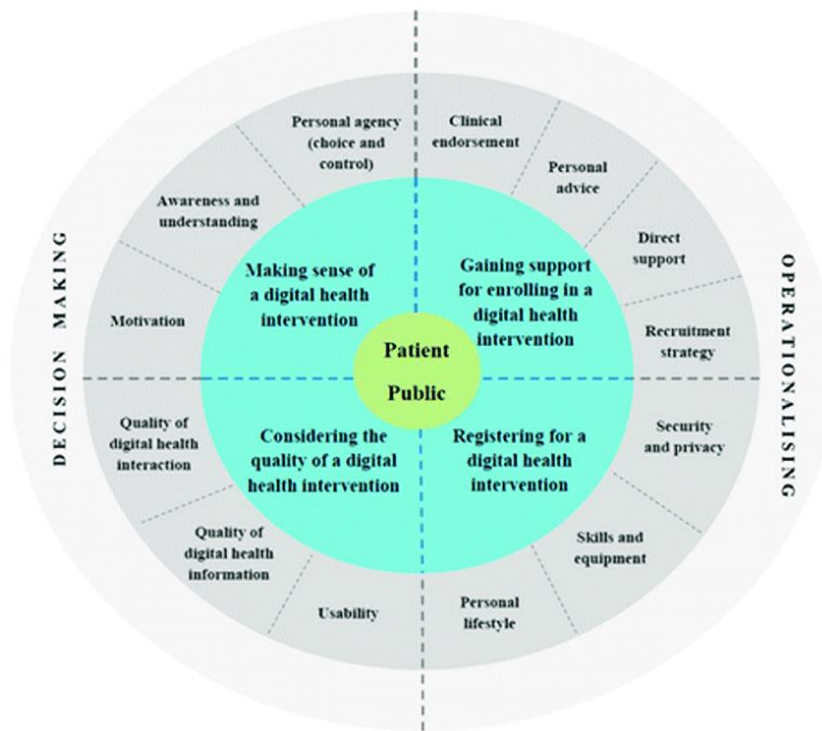


Figure: 2 Digital health engagements

Source: Fulton *et al.*, 2018

TASK 2 POSTER

Using one of the digital technologies apply health promotion principles and values as well as behavioral change theories to design an intervention that promotes health of a population group and addresses digital health inequality.

Background

There is a serious problem with public health that requires to be handled since idleness and mental health issues have significant impacts on people of all kinds and society across the nation. Stress, regardless of schizophrenia, depression, bipolar disorder, and many other mental illnesses are currently important global public health concerns. Sedentary habits, such as a lot of screen time, prolonged moments of sitting, and lack of routine exercise are a factor in several health issues. Intervention is required to enhance people's well-being, lessen the financial load on healthcare systems, avoid and deal with chronic disorders early, and advance equity (Cumpston et al., 2022).



A mobile app called "ActiveMe" is intended to support public health initiatives by promoting physical exercise and a nutritious diet. This software aims to promote overall wellness as fitness, improve psychological health, and combat idleness. The software allows users to track their daily exercise routine, encompassing the total amount of feet they take, the distance they've travelled, and the percentage of calories they burn. Persons who track what they do physically are better able to set objectives, follow their progress, and maintain their motivation for consistent exercise (Vargas et al., 2022). Personalized workout programs are offered by "ActiveMe" depending on users' athletic abilities, choices, and goals.

"ActiveMe" has social features that encourage user interaction, build relationships, let users take part in communal events, and let users reap the rewards of group activities. Users may view content, videos, and advice to be educated and to make wise health decisions. Augmentation aspects are used in "ActiveMe" to make the software more entertaining and interesting.



Health promotion values and principles

The practice and strategy of increasing well-being and good health are guided by the values and tenets of promoting wellness. Equity is important in health promotion because it acknowledges that all individuals ought to receive an equal chance to achieve optimal health. By guaranteeing equal access to amenities, amenities, and potential for all people and communities, it seeks to address the social factors of well-being and eliminate health inequalities. The focus of health promotion is on empowering individuals and populations so they can take charge of their well-being and make prudent choices. It entails encouraging self-efficacy, supporting participative strategies, and helping people acquire the information, abilities, and self-assurance required for healthy living (Ward et al., 2022). The meaning of including individuals, neighborhoods, and other participants in decisions is acknowledged by the promotion of health. To ensure those initiatives are effective, it values involvement, teamwork, and alliances.



Interventions using digital health technologies are ideal for preventive measures. Through interactive components, alerts, and setting targets capabilities, apps can encourage healthy behaviors including exercise, a balanced diet, and stress reduction. Such measures can help people recognize and decrease risk factors for multiple health disorders as well as provide based on research information on preventative measures. By targeting several aspects of health, technological treatments can help a comprehensive strategy for promoting good health. Therapists might assist in managing stress, eating properly, sleeping well, and other aspects of mental and physical wellness (Lattie et al., 2022). Users can obtain full support that general happiness by merging several health fields into only one interface. Health technology treatments can improve the efficacy, availability, and diversity of initiatives aimed at promoting health by adhering to the ideals and principles of wellness promotion.



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Behavior change theory

The Transtheoretical Model suggests that as opposed to making abrupt, rapid shifts, people change their behavior gradually over time. People are unaware or not considering altering their conduct at this point. They could not be informed of the harmful effects of their current conduct or be unwilling to change. People who are in the phase of reflection understand that they need to make some adjustments and have considered doing so soon. People may assess the benefits and drawbacks of the shift though they are still waiting for a decision to act (Sayed et al., 2023). People who are currently in the stage of preparation choose to alter and are working diligently to take steps. Individuals could initiate the behavior, establish goals, or look for assistance. At this stage, the behavior is actively changed, the desired changes are put into action, and new tactics or routines are adopted. To keep up the behavior change over time, serious dedication and effort are needed.



In the next phase, maintenance, the behavior change must be sustained over a lengthy period. During this phase, people seek to maintain their progress, solidify their adjustments, and incorporate their altered behavior into their regular routines, and incorporate the new behavior into their everyday activities. The risk of relapsing is acknowledged by the Transtheoretical Model as well; it is seen as a typical aspect of the transition process. People may go back throughout the phases after relapsing, reassessing how prepared they are to change and going over prior stages (Griffin et al., 2023).

The TTM stresses the value of adjusting interventions in light of each person's stage of change. Digital therapies can take advantage of this idea by tailoring content, criticism, and back to the individual stage of users. People in the contemplation stage, for instance, can benefit from facts and inspirational messages to increase their willingness for shifts, whereas people in the stage of action might need tools for monitoring achievements as well as sustaining behavior. Personalized feedback from digital interventions is possible thanks to user information and progress monitoring. By noting accomplishments, recognizing good improvements, and offering support throughout times of difficulty, such input can be in line with TTM ideals. Modern technology can improve individual self-esteem and inspiration, two important components of the TTM. A system, by providing personalized feedback.



TTM emphasizes the value of setting objectives and keeping track of results. This process can be facilitated by the application of technological interventions that enable users to define precise health objectives, analyze their efforts to change their behavior and track their success over time. Digital programs can assist people in maintaining motivation and accountability during their lifestyle change route by adding elements like alerts, achievement diagrams, and milestone milestones (Rouhani-Tonekaboni et al., 2023). The TTM is aware of how important interpersonal assistance is in encouraging behavior change. To promote social accountability and encouragement, technology-based interventions can include social components like online groups, support from fellow users systems, or virtual coaching. These aspects increase individual engagement and compliance with behaviour alteration objectives by enabling them to connect with others who share their interests, exchange instances, and offer support.



Expected outcome

Digital health treatments can improve ready for transformation by being specifically tailored to each person's stage of transformation and creating awareness of the require for behavior change. Individuals contemplating altering their actions might get more inspired and involved once they receive input and data tailored to their particular stage (Schleider et al., 2022).

User participation and compliance to behavior change objectives can be increased using digital health treatments that leverage TTM behavior change strategies. Persons' confidence, inspiration, and sense of responsibility can be increased by elements like setting targets, tracking advancement, personalized feedback, and peer encouragement, which can result in constant involvement with the treatment.

Through its different stages, the TTM strives to support behavior modification. Individuals can go through the phases and support effective behavior change with the assistance of electronic medical treatments that are in line with the TTM. The tools, assets, and encouragement provided by the intervention might assist users during the planning and execution phases, resulting in the intended behavior modifications. Furthermore, individuals may maintain their behavior modification attempts over time with the aid of characteristics that encourage upkeep, such as regular tracking, notifications, and continuing access to social support. Digital programs built upon TTM can help people feel more capable, which is a key component of behavior change.



Conclusion

Based on study outcomes, the "ActiveMe" program method can also be regularly developed. To better reflect user wants and tastes the solution can be tailored with the aid of input from users, statistical analysis of data, and interaction research. The "ActiveMe" electronic initiative can, in general, affect how policies are developed, improve awareness-raising and educational initiatives, and support research in the area of promoting wellness. The application of digital health technology in fostering changes in behavior and enhancing wellness on a larger scale can be further supported through these implications.

The "ActiveMe" intervention's effectiveness and impact may have an impact on the formulation and application of policies. The establishment of strategies that promote and reward the use of electronic health records to promote healthier lifestyles can be informed by the intervention's beneficial impacts, such as greater activity levels, enhanced psychological health, and a decrease in sedentary behaviors. Policies that facilitate the introduction of electronic therapies into medical facilities and increase the availability of them to a variety of people can involve financial initiatives, legislative recommendations, and compensation methods. The "ActiveMe" intervention may have an impact on efforts to raise consciousness and educate the public about the advantages of technology for digital health and behavior modification.

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