Mobile health interventions in Indigenous populations.

Intervenciones en salud con teléfonos móviles en poblaciones indígenas.

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Humans are social beings and communication is vital and necessary for every cultural group which may be the primary motivator, why many populations worldwide have taken up mobile phones (1). Communication via mobile has significant cultural and identity implications for Indigenous people worldwide particularly those living in rural and hard to reach communities because due to globalization, a number of people now live away from their local communities for trade, employment, education, etc. Thus, mobile phones are devices for social networking and communication; and enables cultural connection and identification with family and friends. Its affordability, versatility of features, and portability create an opportunity for utilizing mobile technology to positively impact the health via health education, promotion, and provision of remote health services among others.

Mobile technology addresses a number of issues in Indigenous communities including, isolation, empowerment, and building an environment for the learning and sharing of knowledge. Culture influences the way any technology is taken up and Indigenous people utilize mobile technology in different ways by adapting its use to the needs and preferences of the cultural group “domestication”. For instance, Indigenous communities use mobile technology for the preservation and revitalization of Indigenous knowledge, cultures and language (2). Thus, mobile technology empowers Indigenous people by responding to local needs and context (3) and creates innumerable opportunities for societal changes and enhance public services such as education, and health particularly for remote and rural Indigenous populations.

Mobile Health (mHealth) is a platform for the delivery of health care interventions and the term “mHealth” describes mobile phone technologies used for health purposes. mHealth is the provision of health care via mobile phones and is a potential tool to support health care in Indigenous communities. For example, assisting young drug-using Indigenous people overcome barriers to HIV prevention (4). mHealth education has the potential to transform health education teaching and learning, promote the development of digital skills needed in the 21st century and promote equity by bringing the benefits of mobile technologies to underserved populations (5). Mobile technology is increasingly popular for health education and awareness creation and there are a number of mHealth sexual health interventions targeted at Indigenous youths, providing sexual health messaging that reflect cultural values, social contexts, and health epistemologies so as to be effective including; circle of life a web based curriculum (3).

mHealth interventions in Indigenous communities require cultural tailoring wherein the health information is framed within the population’s core health epistemology, values and beliefs, especially when addressing sensitive topics like sexual health in order to enable cultural appropriateness and community fit (3). mHealth interventions are more effective when provided in conjunction with appropriate health services (3) but, mHealth resources should supplement and support local teachings. In designing mHealth interventions, it is vital that meaningful user involvement is taken into consideration, especially in communities struggling with the “digital divide” between remote and urban communities. In addition, “contextual inquiry” which is the process of obtaining information from the intended users of an intervention is key in planning, developing and implementing mHealth interventions while equally paying particular attention to community engagement, respect, and equity (6). This can be achieved by working in partnership with the community elders and members to ensure that the mHealth intervention aligns with community needs and priorities as well as is socially inclusive and empowering to the community.

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Also, mHealth messaging content that is explicit, practical, positive, non-fear inducing and oppressive, acknowledges cultural and traditional practices, the social determinants of health, and the diversity of cultures within a population will impact the success/effectiveness of a mobile health intervention. This will also enhance cultural safety and usability, capability, opportunity, and motivation for behavior change in the Indigenous population (7).

Irrespective of the many benefits of mobile health in Indigenous communities, the success of mHealth is challenged by the limited mobile footprint in some Indigenous communities as well as mobile connectivity (8). As such, mobile service cost in some remote communities is steep which will subsequently impact the success of mHealth interventions since only persons able to afford mobile phone services would benefit from the intervention thus, the intervention would be inequitable. Factors specific to a particular region and community also restrain mHealth interventions in Indigenous communities. For instance, the topography of some communities such as hilly terrain influences the mobile network coverage of the region with only people in the direct line of sight with the tower having mobile signal (1). In this instance, individuals living in such regions may not deem it necessary to have mobile phones hence mHealth interventions in these communities would have poor impact.

Nevertheless, despite the cost of mobile phones and services, Indigenous people are rapidly embracing mobile technology and manage costs by choosing pre-paid options over monthly plans and sharing devices with family members (1). But, this raises the issue of privacy because mHealth interventions are often personalized and targeted to a specific individual which in some cases may be addressing sensitive health conditions. Sharing phones reduces the privacy of mHealth interventions and may in the long run introduce harm to the intended user.

Mobile technology has implications for traditional modes of health information dissemination and is an enabler of services. Since there is a very high rate of mobile phone adoption in Indigenous communities, it is ethical and just to bring the social, health, educational, and economic development benefits of mobile technologies to underserved populations (9).

Keywords: Health of indigenous peoples; indigenous population; telemedicine; educational technology (Source: MeSH).

Palabras clave: Salud de poblaciones indígenas; población indígena; telemedicina; tecnología educacional (Fuente: DeCS).

References