The Wild West: Integration of mHealth to Support the EIM Solution

Mobile health (mHealth) is a valuable tool that can be used to monitor and assist in the individualization of behavior change strategies to improve the quality of care and health status of patients. A recent article by Lobelo and colleagues (2016) outlines the potential roles of mHealth in connecting and integrating physical activity in healthcare systems. In their article, the authors discuss the role of wearable monitors in assessing physical activity and relaying this information to the healthcare provider in a meaningful and usable manner. However, Lobelo and colleagues discuss the many challenges we face in streamlining the utilization and improving the connectivity of healthcare providers, patient electronic medical records, and community programs/professionals.

To optimize the use of mHealth technology, it will be necessary to come to an agreement on a standard measurement of physical activity. Standardization of output measures that can be compared to national physical activity guidelines is particularly important for the broader adoption of mHealth in clinical decision making. Even though the use of wearable activity monitors is becoming ubiquitous in our society, each monitor tracks and reports physical activity using different outcomes (i.e., steps per day, minutes of activity per day) that are incongruous with each other and difficult for providers to quickly view and implement in their clinical decision making models. Standardized information can be used to easily monitor patient progress towards achieving national physical activity recommendations and the resulting impact on their health outcomes. Data output from wearable monitors must be processed and reported in a common metric or transformed through cloud-based software applications to provide the healthcare team with simple, easy to use metrics. Future efforts will also need to integrate physical activity data into a patient's electronic medical record for storage and easy access by the healthcare team. Other potential applications for mHealth include their use in providing appropriate guidance in facilitating behavior change and utilizing advanced metrics from multiple data sources, such as health risk assessments, patient surveys, intervention attendance, biometric values and other clinical data, to create predictive algorithms and guide interventions.

To fully capture the potential of mHealth technology for assessing and providing PA counseling in healthcare, an entire team, including healthcare and community providers, researchers, software developers, and health system regulators, will be needed to develop a standardized framework. Strategies to integrate mHealth must be mindful of privacy/security issues (i.e., HIPAA) and compliance with federal regulations (i.e., HITECH legislation). Once a platform for the secure integration of mHealth within health systems is developed, it can then be adapted for multiple clinical populations and health settings. While many challenges still exist within our rapidly evolving digital and healthcare environments, there is great promise for using mHealth applications to improve physical activity assessment and counseling by improving patient engagement and follow up, tracking of activity levels, and facilitating a greater integration of clinical-community linkages.

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