

## Understanding Perceptions and Experiences of Cellular Phone Usage in Low Socioeconomic Youth

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The ubiquitous nature of mobile technologies within the adolescent population provides opportunities to develop and test promising strategies to increase physical activity (PA). The purpose of this study was to examine the perceptions and experiences of cellular phone usage in low socioeconomic youth, who may not have similar access to mobile technologies, in a community afterschool program. A secondary purpose was to determine the potential of integrating smartphone features, social networking, game applications (apps), and texting to promote PA. Additional areas of interest included youth concerns and preferences for various smartphone features. All youth in this qualitative study attended an afterschool program in a local Boys and Girls Club in southwest Virginia. The social cognitive theory and social ecological model guided the focus groups questions. Two graduate students (KA, EC) administered and audiorecorded three youth focus groups (n=14 children;  $\bar{m}_{age}=13.4$  years). Focus groups children had an opportunity to play physical active games with the phones prior participating in the focus group. All discussions were transcribed verbatim. Coding of the transcripts was done independently by two graduate students (KA, JH) and a senior researcher (PE). After coding, the researchers met multiple times to discuss themes that had developed and reconcile any disagreements. The process was recursive, as it guided decisions for further exploration and analysis. Results showed that all youth might not own a cellular phone, the majority had experience with them. The focus groups identified features of the phones that could potentially promote PA, such as texting, the ability to have frequent interaction, and opportunities for social networking. Further, telephone features such as the GPS, mapping, and camera tools were all identified as possible components of an approach to increase physical activity through smartphone use. Games, music, and apps were also identified as potential tools for a physical activity program. In terms of types of apps downloaded, the children identified that games were the most downloaded and, perhaps not surprisingly, the most used feature of a cellular phone was the text messaging program. The second most frequently reported aspect of cellular phones that was used was game playing. Finally, students responded favorably to most of the prototype activity games supported by the smart phones. There was only positive feedback for ability to compete against others and majority wanted a positive and negative point system. With the results from this study, researchers seek to develop theory-based enjoyable cellular phone apps with the capability of increasing PA in youth and to be able to show the effectiveness of these applications. Our findings also suggest that interventions to promote PA in youth should include, but expand upon, features like text messaging and social networking.