THE MOBILE PHONE AFFINITY SCALE: ASSESSING DIFFERENCES AMONG IN THE INDIVIDUAL'S RELATIONSHIP TO THEIR MOBILE PHONE

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Statement of the Problem: Numerous interventions have been developed to be delivered through mobile technologies such as mobile phones. Few studies have considered that the relationship of the individual to their mobile phone may have an important impact on intervention acceptability and outcomes. There are existing surveys to assess this relationship, however they tend to focus on negative constructs such as "addiction" or "dependence". Since mobile technologies can be beneficial (e.g., health tracking, disease management, work productivity), there is a need for a more balanced instrument that reflects both these positive and negative aspects. This research developed and validated the Mobile Phone Affinity Scale (MPAS).

Methodology: Participants (n=1058, mean age = 32.5 years + 10.3; 50% female) were recruited in a national (USA) sample using Amazon Mechanical Turk to complete the MPAS survey along with surveys assessing demographic data, anxiety, depressive symptoms and resilience. Confirmatory factor analyses examined factor loadings and sub-structures within the instrument.

Findings: Analyses produced a final 6-factor model that fit well (RMSEA=0.059, CFI=0.941, TLI=0.931, SRMR-0.042) consisting of 24 items measuring: Connectedness, Productivity, Empowerment/Safety, Anxious attachment, Addiction, and Continuous use. Subscales demonstrated strong internal consistency (coefficient alpha range = 0.76 to 0.88, M=0.83), and high item factor loadings (range=0.57 to 0.87, M=0.75). Analyses demonstrated support for the individuals subscales. Attachment and Addiction subscales correlated significantly and positively with symptoms of depression and anxiety and negatively with resilience, while Productivity was positively correlated with resilience.

Conclusion & Significance: The MPAS is a reliable, valid assessment of both positive and negative characteristics associated with the individual's relationship to their mobile phone. Mobile phone affinity may have an important impact on the efficacy and effectiveness of mobile health interventions. Research is needed to assess the predictive ability of the MPAS within health behavior change interventions delivered through the mobile phone.

Biography

Beth Bock is a Professor in the department of Psychiatry & Human Behavior at Brown University Medical School and A Senior Research Scientist at the Centers for Behavioral and Preventive Medicine at the Miriam Hospital. Dr. Bock's primary research interests are in developing and testing innovative interventions for addictions, particularly tobacco and alcohol use, and interventions to promote physical activity. She has been Principal Investigator on over 18 and co-investigator on 33 research studies funded by the US National Institutes of Health. Her most recent work includes 1) research examining the efficacy of

physically active video games for exercise adoption and maintenance among adults, 2) developing and testing a mobile program for alcohol safety among community college students, and 3) research testing the efficacy of an intervention for smoking cessation delivered through text messaging.

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