

Factors affecting retention and compliance in a longitudinal study of connected, low income, urban, primiparous mothers

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Abstract

Background/Aims Longitudinal obstetrics studies are vital to our understanding of the physiological and social changes that occur during pregnancy and the early postpartum period in the mother and baby. Variables collected in a longitudinal obstetrics study were analyzed to identify factors affecting retention and compliance within a low-income, primiparous population.

Methods Primiparous women were recruited for a prospective cohort longitudinal study. Two study arms were used. The first collected survey data on mood, sleep, and night time eating and actigraphic data for seven days during weeks 22 and 32 of gestation and one week postpartum. The second was identical but had an additional 24 hour sampling of saliva. In addition, breast fullness surveys were administered each day for the first five days postpartum. Pick up and drop off of study materials at the research site were required for each time point.

Results Ninety-two women were recruited; 45% (n=41) were retained and compliant for the entire study. The majority of subjects (88%) had daily internet access, completed surveys on-line (81.4%), and preferred to receive text messages (93.5%) for study reminders over other methods of communication. Longitudinal time ($P<0.001$), increased number of reminders ($P<0.001$), and increased length of time to complete surveys ($P<0.001$) had a significant negative effect on study retention, whereas enrollment in the study arm with greater sampling and communication ($P<0.001$) and earning a higher percentage of available compensation ($P<0.001$) had a significant positive effect on study retention.

Conclusions The high rate of daily internet access and preference for text messaging for primary means of communication with research staff suggests a high rate of smart-device technology use among young, urban-dwelling, low-income women. Designing studies that can be completed via internet and using text message reminders may be a preferable and practical means of conducting longitudinal obstetrics studies.