TRACK: COMMUNICATION-MANAGEMENT-GOVERNANCE Presentation: Experience sampling tool

S. NAMAZI, U. GLAESSER, A. SIXSMITH, N. O'ROURKE. Developing a mobile experience sampling tool for seniors with bipolar disorder. Gerontechnology 2012;11(2):189; doi:10.4017/gt.2012.11.02.688.00 Purpose Large numbers of persons with severe mental illness are living to later life for the first time in history. This includes bipolar disorder (BD), an often severe and disabling psychiatric condition that afflicts roughly 75,000 Canadians 50+ years of age¹. Moreover, BD accounts for a sizeable and growing proportion of the \$45 billion annual cost of mental illness in Canada². BD is characterized by extreme variations of mood, where the sequence, timing, severity and duration of manic and depressive episodes vary widely. One challenge from a research point of view is that our understanding of how symptoms impact on people's everyday lives is based mainly on their accounts or assessments done in clinical environments. This paper describes the development of a cost-effective experiential sampling methodology (ESM) tool for use in clinical and health-related research with older adults with BD. The ESM-tool will use a mobile smart device to prompt people to provide 'mood in the moment' responses and collect location GPS-data. In this way the ESM-tool attempts to tap into the 'real-time' experience of people, rather than depend of their retrospective reports. Method The development of the ESM-tool is the initial stage in a multisite Canadian study of older adults with BD. An initial stage will involve a state-of-theart review, end-user (e.g., focus groups and interviews) and expert consultation to determine the requirements for the tool. A modelling approach will be utilized to determine requirements independent of specific device platforms^{3,4}. In a second stage, the ESM-tool will be developed, implemented (e.g. on a smartphone or iPad) and tested in a process of iterative prototype development. Various iterations will be optimized and evaluated for usability and acceptability with potential end-users. For example, different solutions may need to be developed to accommodate potentially conflicting requirements, such as portability versus device manipulation (which may be a problem for some people within the target population). In a third stage, the ESM-tool(s) will be piloted with older adults with BD prior to the implementation in the main research phase. This paper focuses on the initial scoping and requirements specification of the ESM-tool. Results & Discussion The ESM-tool provides a novel methodology for enhancing our understanding of BD and other chronic conditions and has a number of advantages over conventional data collection methods (e.g. paper diary), notably higher reliability and the ability to automatically record movement and location, connect with devices such as bio-medical sensors and connect with exogenous data (e.g., temperature and weather conditions). By capturing the dynamic nature of experience through ESM, it is possible for researcher to explore fluctuations in motivational patterns in specific daily tasks with the potential for designing related interventions. These fluctuations, especially when analyzed longitudinally, provide information on the meanings individuals attach to their major daily activities. The goal is to examine symptom patterns, specifically severity of depressive and mania symptoms, cycling between the two (i.e., rapidity of shifts between poles) and interactions between symptom levels and cycling as predictors of quality of life and situational factors which may affect these associations over time. Implications and plans for the next stage of the ESM-tool research, involving users in an iterative, rapid-prototyping development cycle are presented and evaluated. The potential of the tool for deployment in other areas of gerontological research is evaluated.

References

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Keywords: experiential sampling methodology, bipolar disorder, requirement engineering *Affiliation*: Simon Fraser University, Burnaby, BC, Canada; *E:* sna44@sfu.ca *Full paper*: No