Need for Differentiating Presentation of Patient-gathered Data Between Type 1 and 2 Diabetes During Consultations

Norwegian Centre for E-health Research

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Background and aims:

The integration of mobile health (m-health) technology within medical practice is a discussion riddled with debate and unresolved questions. In addition to privacy and security is the question of how to present patients' m-health self-gathered data during consultations. For chronic and resource-heavy illnesses, such as diabetes, it is necessary to consider adaptive formatting for the presentation of patients' sensor/app data to medical personnel, with the aim to determine sound strategies and formats for presentation during consultations.

Methods

Both an anonymous online patient survey as well as three workshops involving clinicians involved in diabetes treatment, EHR-vendors, patients and researchers were conducted. Diabetes patients in Norway answered questions related to experienced challenges and desired consultation discussion topics, given more time for discussing self-gathered data.
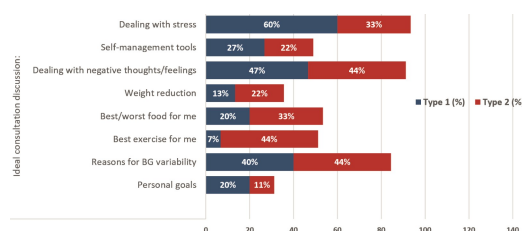

Figure 1: Topics to discuss during consultations presented as percentage of Type 1 (n=15) and Type 2 (n=9) respondents respectively.

Results

Individuals with Type 1 (n=15) and Type 2 (n=9) completed the survey (Figure 1). While "motivation" was a common challenge, stress management (Type 1), BG variability, exercise and mood (Type 2) were the most wanted consultation topics.

The workshops revealed large differences in preferred ways of data presentation, e.g. GPs preferred quick ways of reviewing data during consultation, while specialist preferred to receive and review more detailed data before consultations (Table 1 displayed in abstract, see below for most recent version of our clinician's view of patient-gathered data).
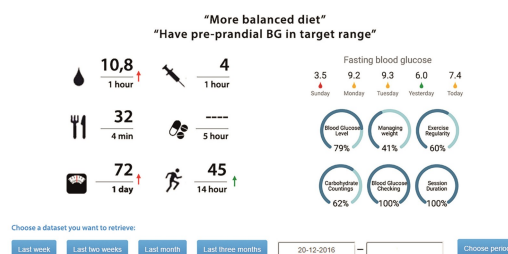

Figure 2: Clinician's view of patient-gathered data from the most recent version of the Diabetes Diary app (available on app stores). Based upon the Diabetes Share Live (DSL) System presented at ATTD2016. Layout by Henna Marttila.

Conclusion

Due to numerous factors associated with diabetes, it is necessary to not only consider a patient's diabetes type and clinicians' specialties but also patients' personal challenges, resources, and capacity when preparing patient-gathered data for consultations. The Full Flow project (2016-19) will study use of dynamic data-formats for presenting patient-gathered data during consultations.

Updates on this work will be presented during E-poster Discussion SESSION 5 (Station 3)