

CONFERENCE ABSTRACT

The design of features for a mobile health application for the management of interstitial cystitis/painful bladder syndrome

European Telemedicine Conference 2016, Oslo 15-16 November

Janessa Griffith, PhD student, Women's College Hospital, University of Toronto, Canada

Correspondence to: Janessa Griffith janessa.griffith@mail.utoronto.ca

Introduction: Interstitial cystitis/painful bladder syndrome (IC/PBS) is a condition characterized by recurrent pain or discomfort in the bladder and pelvic floor in the absence of an infection or other disease. Common symptoms include pain, urgent and frequent need to urinate and nocturia [1]. Some people experience worsened symptoms with certain foods, and in females, menstruation [1]. Approximately 3.3 to 7.9 million (2.7% to 6.53%) female adults over 18 years of age [2] and 2.1 to 4.6 million male adults (1.9% to 4.2%) between 39 and 74 years of age [3] experience IC/PBS symptoms in the US. Despite the prevalence, no app exists to manage IC/PBS symptoms. The goal of this research was to design features that could be included in the development of an app for IC/PBS management.

Methods: Based on literature about symptoms associated with IC/PBS, the researcher developed features for an app to help people manage their chronic condition.

Results: The American Urological Association developed guidelines for treating IC/PBS and recommended the following as first line treatments: relaxation/stress management, pain management, patient education, and behaviour modifications [3]. Thus, the app includes links to relaxation techniques. The app also includes links to evidence-based websites where patients can learn about IC/PBS. Another feature is a calendar diary where users can enter the food and liquids they consumed, exercise they participated in, and events at particular times and enter how they felt. This information may be helpful for users to present to their physicians to draw associations between, for example, certain foods and symptom flares, and to aid in developing a pain management plan. The app is also tailored according to the user. For example, if the user identifies as a woman, features specific to menstruation symptom fluctuations will be present. The app also has a feature that displays public washrooms in their vicinity (based on the user's current location), as urination frequency and urgency are common symptoms.

Conclusion: Overall, this research identifies features that could be incorporated into the development of an app for people of all health literacy levels living with IC/PBS to manage their condition. It also

serves as an example of how content may be tailored to suit the unique needs of the user. Future research will include the development and evaluation of a prototype design.

References:

1. Hanno PM, Burks DA, Clemens JQ, Dmochowski RR, Erickson D, FitzGerald MP, Forrest JB, Gordon B, Gray M, Mayer RD, Newman D. AUA guideline for the diagnosis and treatment of interstitial cystitis/bladder pain syndrome. *The Journal of Urology*. 2011 Jun 30;185(6):2162-70.
2. Berry SH, Elliott MN, Suttorp M, Bogart LM, Stoto MA, Eggers P, Nyberg L, Clemens JQ. Prevalence of symptoms of bladder pain syndrome/interstitial cystitis among adult females in the United States. *The Journal of urology*. 2011 Aug 31;186(2):540-4.
3. Suskind AM, Berry SH, Ewing BA, Elliott MN, Suttorp MJ, Clemens JQ. The prevalence and overlap of interstitial cystitis/bladder pain syndrome and chronic prostatitis/chronic pelvic pain syndrome in men: results of the RAND Interstitial Cystitis Epidemiology male study. *The Journal of urology*. 2013 Jan 31;189(1):141-5.

Keywords: mobile health application; mhealth; chronic disease management; ehealth; interstitial cystitis
