

Evaluation of a Health Symptoms Tracking App for Adults with Chronic Disease

Suzanne Hawley, PhD, MPH & Madeline Shonka, BS
Department of Public Health Sciences, Wichita State University

BACKGROUND:

According to the CDC, 60% of American adults have at least one chronic disease.¹ The 46 million Americans who live in rural areas are significantly impacted by chronic disease due to the distance from specialists and the cost of travel.² Compared with urban populations, older adults with chronic conditions in rural areas have a 23% higher mortality rate.³ Because 97% of the US population has a mobile device⁴ and 93% of US adults use the internet,⁵ digital interventions may be more accessible for rural populations. Symptom tracking using patient-reported outcomes has been found to improve, health-related quality of life and decrease the number of ER visits and number of hospitalizations.⁶ The current study capitalizes on these findings by utilizing a newly developed mHealth mobile application to facilitate better care among adults with chronic illness and their providers.

METHODS/RESULTS:

Participants were adults (N=29) between 18 and 64 years of age with one or more chronic illnesses. Most participants (75.9%, n=22) were female, while 4 (13.8%) were male and 3 (10.3%) reported another gender. 19 participants (65.5%) had not used a tracking app before.

Participants completed an online survey both before and 30 days after using the CoVstat App to evaluate the effectiveness of the app, reporting responses on a likert-type scale from 1 (Strongly Disagree) to 5 (Strongly Agree). After use, participants reported statistically significant changes ($p=.05$) in feeling more prepared for health appointments, believing they could directly impact their health, and rating the app as a good value.

SIGNIFICANT IMPROVEMENTS:

Feel Prepared
for my Health
Appointment

Impact
Health with
the
Knowledge I
Gained

The App Is
a
Good
Value

The following percentage of respondents indicated that they “agree or strongly agree” with these statements AFTER using the app :

100%	Spend 1-2 minutes on the Group Chat
93%	Used the app 3-6 weeks
80%	It takes 1-2 minutes to use the app
56%	Can respond more effectively to chronic illness
53%	The app is a good value
53%	Plan to use the knowledge in life now
50%	Have actively used knowledge gained

HOW APP HELPED YOU:

- More cognizant/self-aware on a daily basis.
- Helps with mindfulness practice.
- Helped me notice patterns in my symptoms & make changes
- More accurate at describing my symptoms
- Aware of symptoms I hadn't thought of.
- Helps me communicate with my doctor.
- Helps me not distort my symptoms

LIKED BEST ABOUT THE APP:

- Increased self awareness
- Choice of what symptoms to track
- The detail
- The monthly overview
- Design
- Speed of use
- Ease of use

DISCUSSION/IMPLICATIONS:

A majority of participants interested in using the CoVstat App believed it could benefit their health status, that they could directly use this information, that it could help them better communicate to their medical providers and make them more knowledgeable about their symptoms, and thought it was a good value. The small sample size was a notable limitation in the study. Improvements to the app included fixing bugs with symptom selection, login, and viewing symptoms. In conclusion, the CoVstat App shows promise for helping individuals with chronic illness, even those with limited access to care.

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