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## **PO05** MS self<sup>TM</sup>, an Educational Application for People with Multiple Sclerosis (MS): Patient Experience in Recording MS-Related Symptoms and Daily Activities

## Background

- Dialogue between people with multiple sclerosis (MS) and their healthcare providers (HCPs) is integral to a goal-oriented strategy for managing MS<sup>1</sup>
- MS self<sup>™</sup> is a multicomponent, educational application (App) developed to proactively aid in MS-related record-keeping, support disease and symptom management, and facilitate patient dialogue with their HCPs and caregivers (Figure 1)
- Free App available for both iOS and Android
- The MS self<sup>™</sup> App incorporates disease education, journaling, reporting, Fitbit<sup>®</sup>-enabled health-monitoring features, and includes
- Educational Fact Cards
- More than 40 Fact Cards provide info and tips on managing the physical, emotional, and mental challenges of living with MS
- Fact Cards are updated regularly
- Topics are easily searchable within the App
- Symptom tracking (**Figure 2**)
- Enables users to track moods, symptoms, and activities
- Users can add text to describe their daily experiences
- "Emoticons" encourage users to be forthcoming in expressing their emotions
- Fitbit and weather integration
- Information on weather conditions may be helpful to users whose symptoms may be exacerbated by extreme temperatures
- Reporting
- Presents historical data collected from symptom tracker, Fitbit monitoring, and weather conditions
- Data can be tracked weekly, monthly, or as customized by user
- Enables user to visualize trends and may help facilitate dialogue with HCPs and caregivers

## **Objective**

• To describe user experience by recording MS-related symptoms, mobility impairment, and daily activities

## Methods

- The MS self<sup>™</sup> App (version 1.0 launched on November 20, 2013; current version, 1.7), which is Fitbit-enabled and contains >40 Fact Cards with searchable topics and planned updates, can generate a concise report to share with HCPs during visits
- In this longitudinal analysis, de-identified and aggregated data on MS-related symptoms, mobility impairment, and impact on daily activities were tracked using Google Analytics from December 1, 2013 to November 1, 2015

# **Educational App** iOS .ull CARRIER 4G 4:59 PM





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## Results

- Overall usage, as determined by Google Analytics (Figure 3)
- Estimated 11,120 users logged 84,886 sessions with an average session time of 6 minutes and 39 seconds
- Total events tracked: 726,123
- An event was defined as any activity use on the App (eg, journaling, event recording, Fact Card use)
- 418,485 total journal events recorded (Figure 4)
- 41% of journal events were reported as MS-related symptoms
- Fatigue (13%), numbness or tingling (11%), pain (10%), lower body weakness (9%), loss of balance/dizziness (7%), muscle spasticity/tremor (7%)
- 25% of journal events pertained to mood
- 16% of journal events were related to daily activities
- Housework was the most frequently reported daily activity (17%) by users and, of these
- 18% had at least some issues with mobility
- 15% had significant issues with mobility
- In the daily activity category of walking (14%)
- 17% had some issues with mobility
- 17% had significant issues with mobility
- 10% of journal events pertained to mobility. Of these,
- 21% had some mobility impairment
- 11% had significant impairment
- 8% of journal events pertained to energy level

## Limitation

confirmed MS diagnosis

## Summary

- mobility impairment, and the impact on activities of daily living

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**Disclosures** CBG, BN, RM, and MR are employees and stockholders of Acorda Therapeutics, Inc. ALR was an employee of Acorda Therapeutics, Inc. at the time of this study and is a stockholder of Acorda Therapeutics Inc. JM has nothing to disclose.

**Reference** 1. Lugaresi A, et al. *Patient Prefer Adherence*. 2012;6:143–152.



Figure 2. Mood Tracking,

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• Although the MS self<sup>™</sup> App is intended for individuals with MS, users were not required to have a

• MS self<sup>™</sup>, a unique support tool that combines disease education and journaling, allows users to record MS-related information to help facilitate dialogue with HCPs and caregivers • Findings describe the patient experience in recording MS-related symptoms, specifically

• Longitudinal recording of MS-related symptoms and activities may facilitate improved communication between people with MS and their healthcare providers