

## Tracking the implementation of a mental health smartphone application at a large tertiary care health network

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# Tracking the implementation of a mental health smartphone application at a large tertiary care health network

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## Background

- Grant funded application launched for free public use in April 2019
- Centralized source of self help and behavioral health resources within LVHN and greater Lehigh Valley
- Available for download via app store and QR code
- App advertised through flyers, communication from provider to patient
- App seeks to improve patient education and access to care

## Problem Statement

This study will review engagement metrics of the Guidebook application from February 2019 to January 2022 and suggest changes to improve utility of the app based on this data.

## Methods

- Various user engagement metrics updated with every launch of the application on the Guidebook web platform (**Figure 1**)
- Thematic analysis of trends in number of downloads, users, most popular menu/content item launches monthly from February 2019 until Jan 2022 (3-year period)

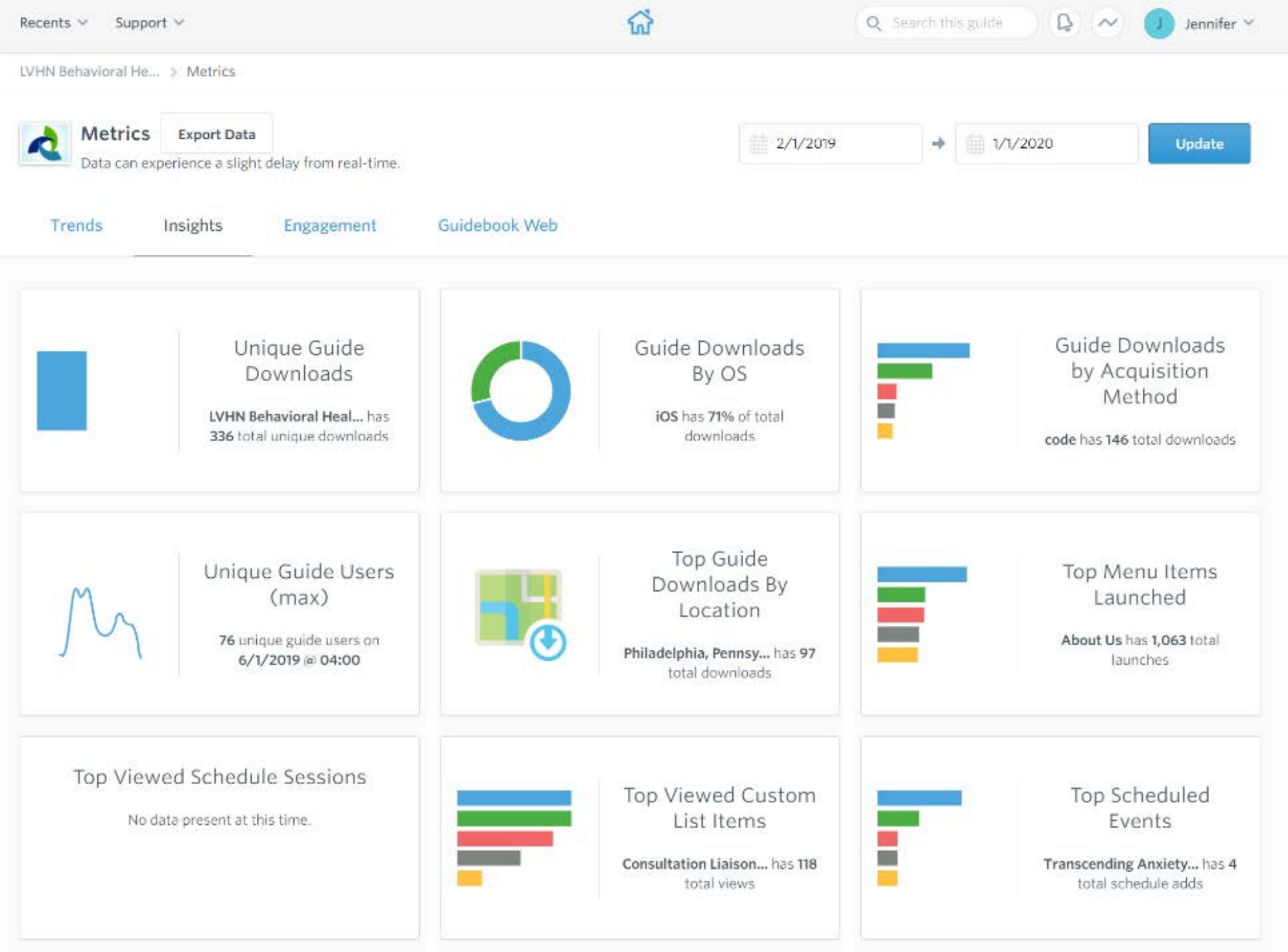


Figure 1. Metrics available on Guidebook platform

## Results

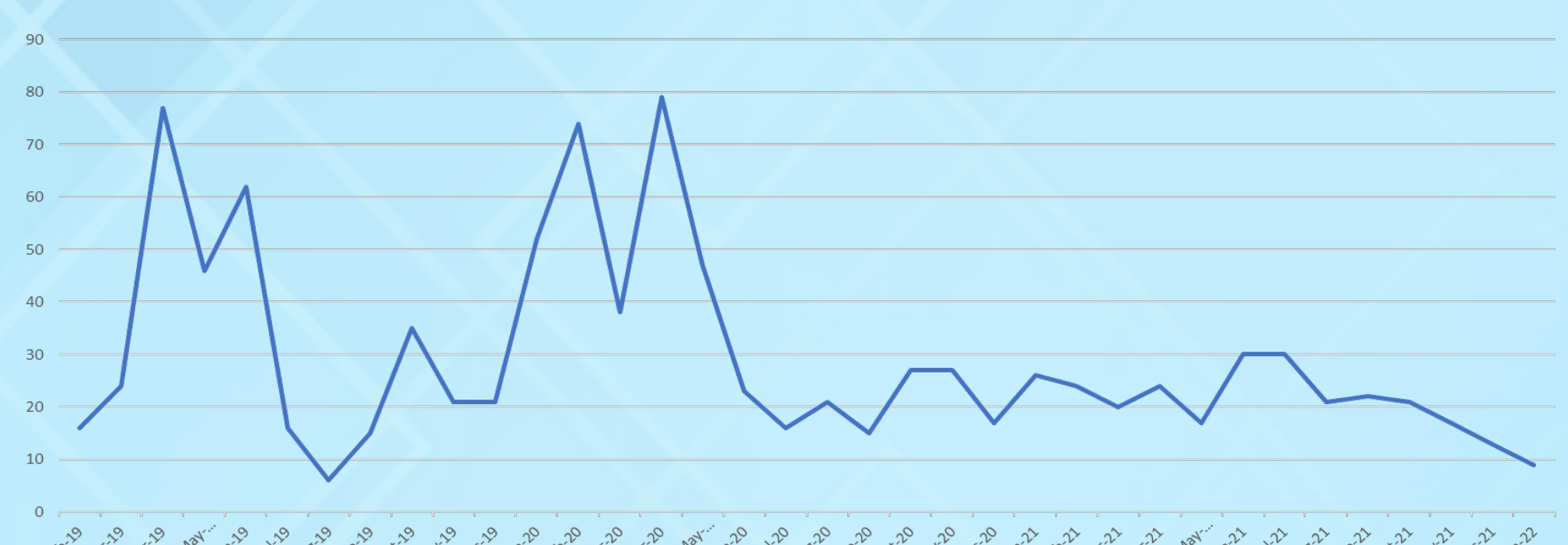


Figure 2. Number of downloads per month



Figure 3. Number of users per month

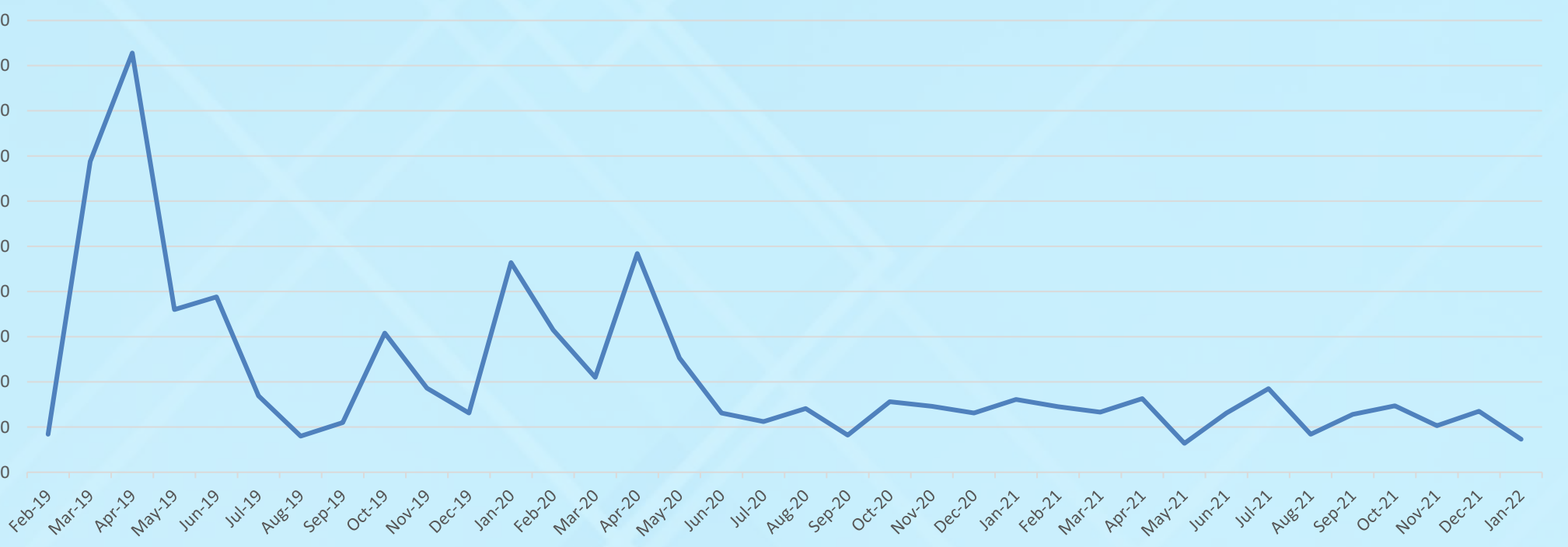


Figure 4. Number of guide sessions per month

- Downloaded a total of 1049 times since launch (**Figure 1**)
- Highest engagement between April-June 2019 and Feb-May 2020 (**Figure 2,3,4**)
- A guide session was an average of 69 seconds

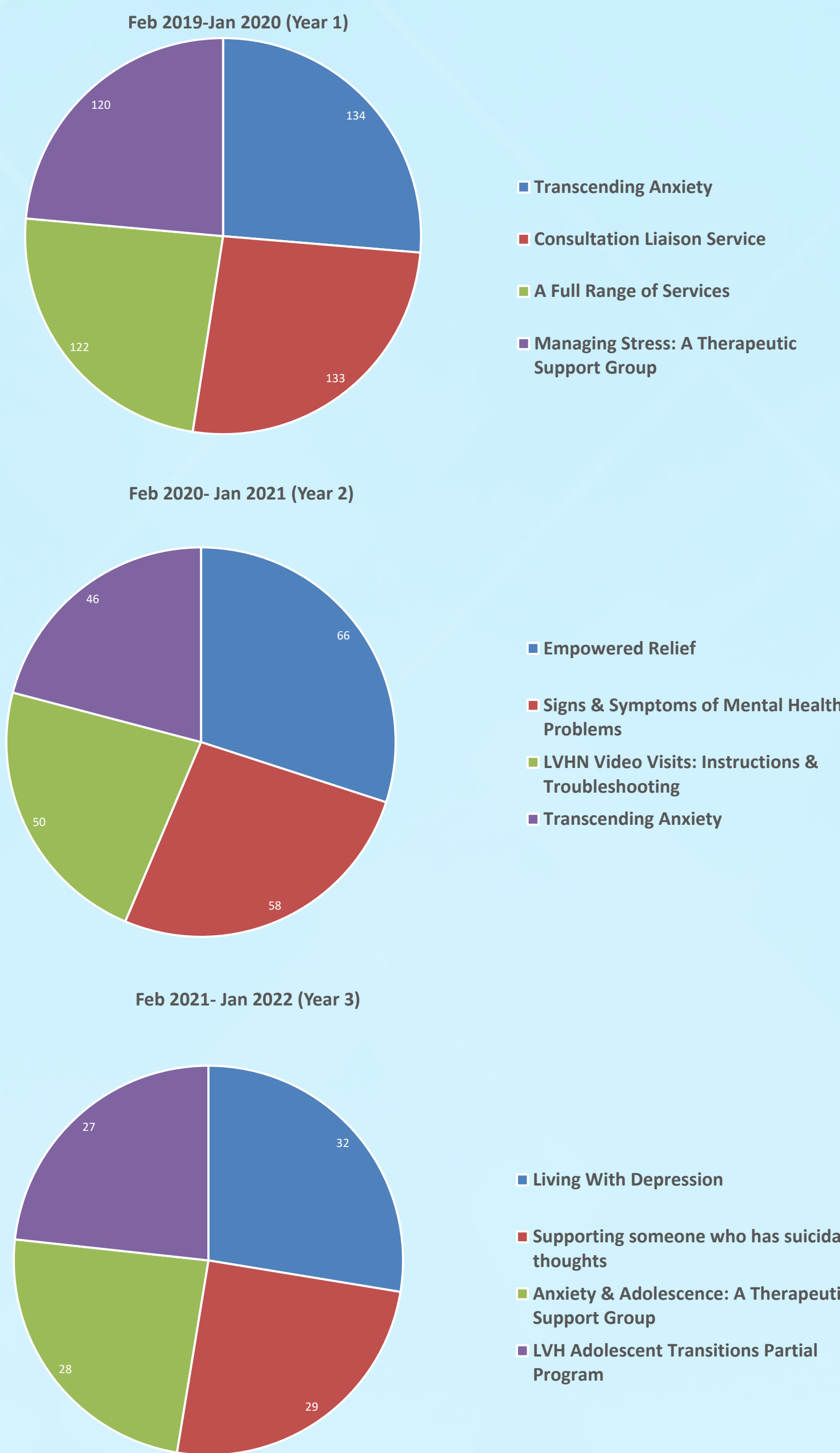


Figure 5. Four most popular content items by number of launches annually

- Self- help resources became more popular in year 2 and 3 (**Figure 5**)

## Discussion

- Number of downloads correlated with number of users and guide sessions
- App had highest engagement in months following app launch (April-June 2019) and pandemic onset (Feb-May 2020) when new content was added
- Like many mHealth apps, experienced reduction in engagement- in the past year, average of 21 downloads, 33 users, 130 sessions per month
- While first used as an LVHN information source, Guidebook users accessed more self- help resources in later years (ex. 'Living with Depression', 'Empowered Relief')

## Conclusions

- App utility for consumers appeared to have changed over time- pandemic may have changed interests of application users (ex. increased interest in video visits instructions in year 2)
- Improving usability and reliability through new content regenerated engagement with the app- since this data collection, guided meditation audio, medication list, and current resources in Lehigh Valley have been added and user metrics will be re-evaluated in following months
- Values based patient care: Understanding metrics allow app developers to add relevant and useful content for app consumers- thus improving patient education
- Self- directed learning: Learned to evaluate meta-analyses of RCT's about efficacy of mobile health ('mHealth') in psychiatry

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