# REDEFINING USER ENGAGEMENT FOR DIGITAL THERAPEUTIC APPS

## Tips to promote regular utilization and achieve meaningful health outcomes

An Ipsos/juli Collaboratory White Paper

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# Redefining user engagement

## Why user engagement metrics need to be redefined for digital therapeutic apps

User engagement for apps is generally measured using a combination of active users, app opens, and session length.[1] Apps typically strive for increased user engagement, because it leads to increased user loyalty, retention, and ultimately business success.

However, user engagement with digital therapeutic apps is more complex. **For digital therapeutic apps, utilization leading to improvement in health outcomes is what ultimately matters** and should be monitored when assessing engagement.

## Seamless integration into users' lives is necessary to achieve improvements in health

For utilization to translate to improvements in health outcomes, regular use is necessary. Thus, it is instrumental for digital therapeutic apps to seamlessly integrate into users' lives and help them effectively manage their condition(s).

The following slides highlight key development tips for seamless integration into users' lives

1. Hayes, Joseph F. *Why Does Engagement Matter in Health Apps?*, static1.squarespace.com/static/5fa87841b62c744907e46ad2/t/6419b7137f3bb52a7ac5b4cf/1679406868641/juli+engagement.pdf.

# Keep required user inputs to an absolute minimum

Consistent logging of health metrics can be very time-consuming to enter manually, yet they are important to track. Metrics such as heart rate, blood glucose, treatment adherence, sleep, exercise, etc. can be passively measured and tracked via integration with wearables, electronic health records, and digitally administered therapies (e.g., smart inhalers, insulin delivered via continuous glucose monitors or smart pens, etc.)

While there remain some metrics that require user input (such as diet, symptoms, mood, etc.), entry can be simplified with features that save time. This can include favorited meals and user-friendly scales to rank symptoms and mood.

# Address multiple conditions

Most people who have a chronic condition have more than one. According to the CDC, 40% of adults in the United States have two or more chronic conditions.[2]

Providing a solution that considers all users' health conditions is ideal and more time-efficient for users compared to point solutions for each condition. It is faster to track all health metrics in one place vs. using a different platform for each condition

2. "About Chronic Diseases." Centers for Disease Control and Prevention, 21 July 2022, www.cdc.gov/chronicdisease/about/index.htm.

# Provide a quality user experience

People with chronic conditions don't like to be reminded of their illness(es) and appreciate when digital therapeutics do not feel like a health tool. They want digital therapeutics to be supportive, simple to navigate, easily integrated into their daily routine, and fun.

A user-friendly interface is a necessity. Reminders in and outside the app help users stay on track daily. [1] Incorporating aspects of care and personalization can make users feel more invested. This can include individualized recommendations, prompts that are worded in a friendly, supportive tone, and frequent mention of the user's name. [1] Adding some elements of gamification such as badges, points, levels, and streaks can keep users engaged and motivated. [1]

Additionally, continuously seeking and incorporating user feedback is important to optimize the user experience.
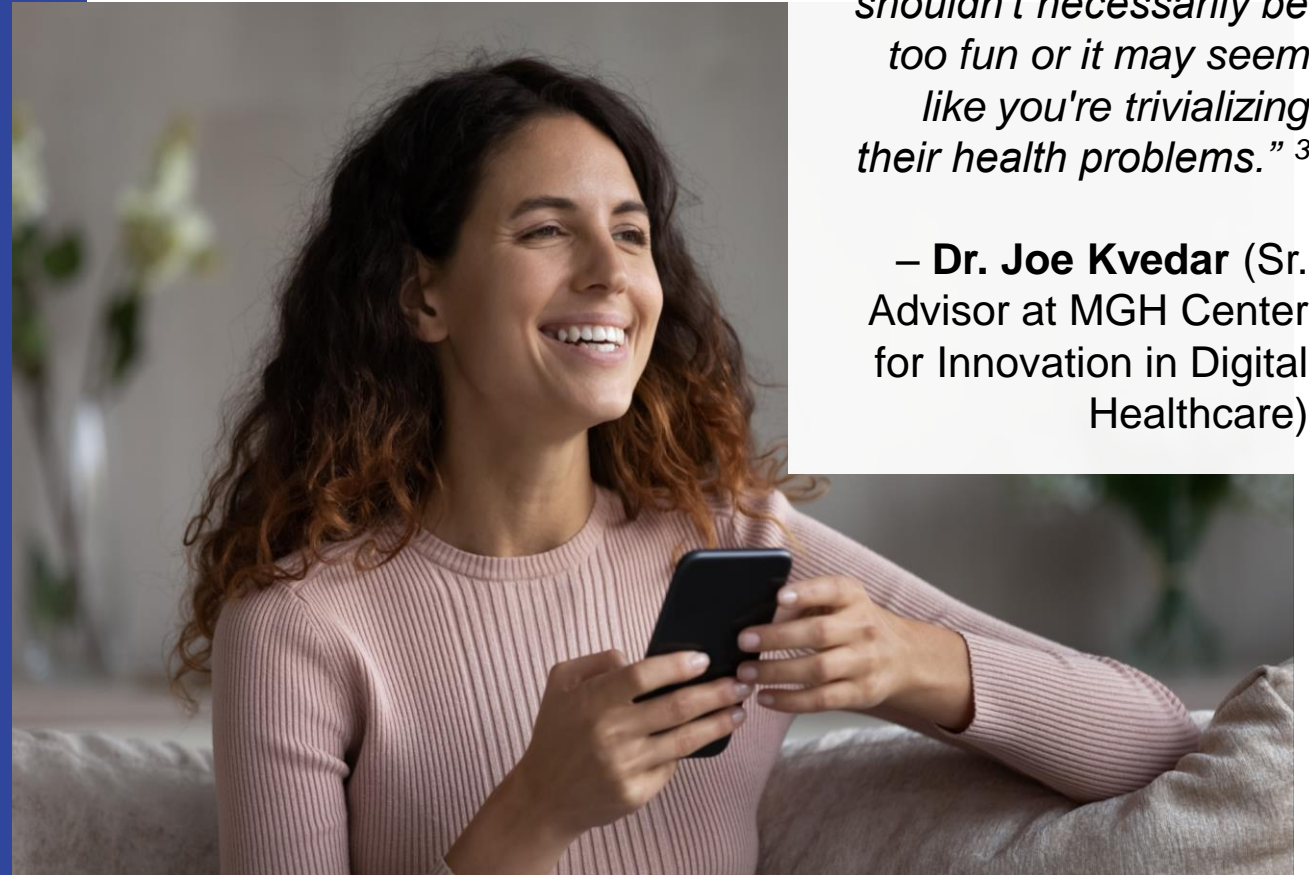
*"Health apps shouldn't feel too clinical. Patients don't want to be reminded that they're sick. But health apps shouldn't necessarily be too fun or it may seem like you're trivializing their health problems."* [3]

– **Dr. Joe Kvedar** (Sr. Advisor at MGH Center for Innovation in Digital Healthcare)

1. Hayes, Joseph F. *Why Does Engagement Matter in Health Apps?*, static1.squarespace.com/static/5fa87841b62c744907e46ad2/t/6419b7137f3bb52a7ac5b4cf/1679406868641/juli+engagement.pdf.

3. Lumpkin, Ashley. Tips for Launching Digital Solutions for Chronic Conditions | Ipsos Webinar, 19 Sept. 2023, www.ipsos.com/en-us/tips-launching-digital-solutions-chronic-conditions.

# Account for changes in disease lifecycle

Due to the long-term, fluctuating nature of chronic conditions, digital therapeutics should adapt to users' fluctuating health needs. Users typically need more support when first diagnosed – to understand what is needed to properly manage their condition and incorporate these steps into their everyday lives.

Whereas once users become accustomed to the proper habits for maintaining their health, less support is generally needed. At this point, digital therapeutics can still be very useful for maintenance and monitoring vitals, symptoms, etc. If users experience flare-ups, they can easily access tools to help them regain control of their condition and avoid trips to the doctor. In this way, apps can continue providing benefits to the user and see long-term user retention.

# An example of successful user engagement from juli

juli is an AI-powered app that enables patients with one or more chronic conditions to identify triggers of their condition. juli demonstrates utilization that leads to health outcomes. The juli app is used on average 2.1 times a week and was developed utilizing a combination of evidence-based approaches for improving health outcomes:

## juli's evidence-based approaches for improving health outcomes

### Minimalistic Data Gathering

juli gives the patient a holistic picture of their health situation by combining various data sources into an easy-to-read dashboard. The patient's effort for gathering this data is kept as minimalistic as possible. Most of it is passively sensed like sleep, activity, HRV etc. Environmental data like weather, air pollution, or pollen is added using the exact location of the user. 2-3 questions posed to the patients about their health status complete the picture. Patients need less than a minute to complete the questions and look at their dashboard, including an AI-generated health score.

### Daily Dares

The app provides the user with 4 very small daily challenges, some of them generic, some of them individualized, incorporating gamification competition and achievements. A third of the juli users use these so-called "Daily Dares" that encourage them to a healthier lifestyle.

### Reminders

juli uses customizable reminders to encourage medication adherence. Users can also report their medication intake with one tap on the phone or watch reminder, enabling them to track their medication adherence and see the correlation to their health status.
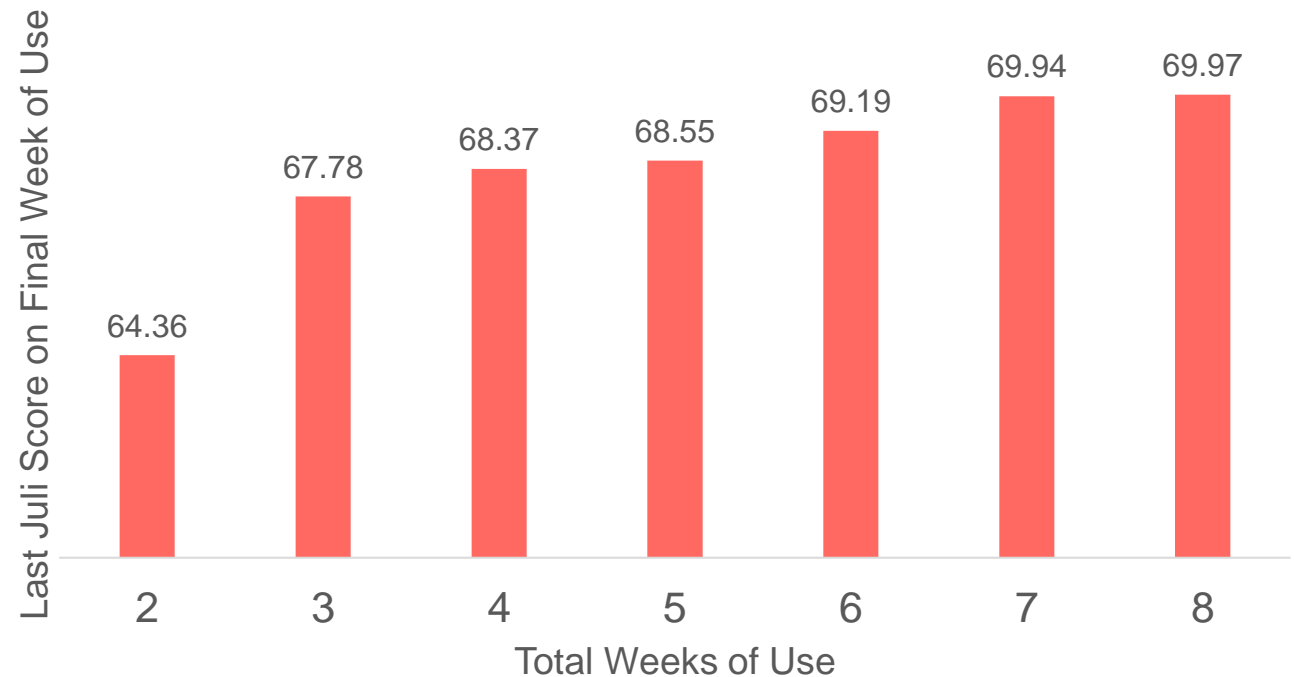
# juli measures engagement by pairing utilization and outcomes

A striking observation is the positive relationship between the duration of juli's usage and the improvement in users' wellbeing. **The longer individuals engage with juli, the more profound and sustained the positive effects on their health.**

## Last Juli Score By Weeks Using the App



This graph shows the juli score at the end of the duration the app was used by juli users with depression. (juli aggregates data into one juli score that indicates the patient's wellbeing at any given point in time.) The results indicate that the duration of usage has an impact on the wellbeing of juli users.

3. Lumpkin, Ashley. Tips for Launching Digital Solutions for Chronic Conditions | Ipsos Webinar, 19 Sept. 2023, www.ipsos.com/en-us/tips-launching-digital-solutions-chronic-conditions.

# Conclusion

User engagement success should be designed for and measured differently when it comes to digital therapeutics. Success metrics need to shift away from standard usage measures to outcome-based measures of success. Utilization should be paired with health outcomes to demonstrate that the digital therapeutic leads to improvement in user health.

# Support from Ipsos

Ipsos Healthcare can assist digital therapeutic companies in refining their user engagement strategy to ensure seamless integration into users' lives, promote user retention, and drive beneficial health outcomes.

Ipsos Healthcare can leverage a variety of research techniques to shape this strategy, such as patient journey mapping, user experience testing, health outcomes modeling and patient and provider input. With the digital therapeutic market becoming more and more competitive, your app or solution will require precise and unique messaging and positioning aligning with your customers' or patients' needs. Ipsos specializes in the integration of the voice of your customers to your products' utility and ultimate usage, as well as proven methods leading to increased patient satisfaction.

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