

Project Evaluation

APP for INDEPENDENCE A4i



A4i Pilot

RUHS-BH piloted the App for Independence (A4i) a digital technology for individuals with schizophrenia spectrum diagnoses. A4i is a phone app designed for those with schizophrenia symptoms and is built to engage both the consumer and the mental health providers serving that consumer. The app features include: Notes sent by the consumer to their mental health provider, a Newsfeed that supports connection to a community of people with similar challenges, Check-Ins to track mood, sleep, and goals, medication reminders, and an ambient sound detector to aid those with auditory hallucinations to differentiate environmental sounds from hallucinations. A4i features also include a clinical dashboard for providers to view client Notes sent, and client responses to A4i mood, sleep, goals and medication Check-Ins. The provider dashboard is meant to be accessed by the clinic "Care Team" who provide services at the County clinic.

Implementation Highlights:

The process for selecting A4i as a pilot app was a collaborative process involving the RUHS-BH Peer Support Specialists (PSS) staff assigned to the Help@Hand project. PSS staff reviewed multiple digital apps to make recommendations on potential apps for RUHS-BH to pilot. The criteria included reviewing apps that could support the high-risk population of focus. After reviewing multiple digital apps, the PSS staff recommended A4i or Focus as potential apps to test in a pilot for high risk populations. A series of focus groups with RUHS-BH consumers were conducted to gather feedback on which app the consumers preferred for the pilot. Due to the COVID pandemic in 2020 the focus groups were conducted on Zoom. During the focus groups the functions of each app were shared with app screen shots or with actual sharing of the app in Zoom screen share. A4i was preferred by consumers slightly more than the Focus app because of the additional features available in A4i.

The A4i pilot implementation required managing multiple project components including: training staff in the use of the A4i, managing smart phone devices distributed to consumers for use during the pilot, and development of training materials, welcome packets for consumers, and protocols. Initially the team of Peer Support Specialist staff for the Help@Hand project used the A4i app to become familiar with the features and functionality.

Pilot participant recruitment began by marketing the pilot to County clinic supervisors through a series of emails and presentations. Recruitment initially focused on the adult Full Service Partnership programs with expansion to additional populations in Older Adult clinics and TAY Drop-in centers. Clinic staff referred consumers they believed fit the criteria of Schizophrenia Spectrum diagnosis, and who would be interested in participating, and could benefit from using the A4i app. The piloting of the A4i app was designed to occur over a six-month period. However, the recruitment was targeting at least 90 consumers which occurred over a period of months. Since recruitment was occurring in a rolling process, consumers enrolled over the course of the pilot. Consumers graduating from the pilot completed 6 months using the A4i.

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A4i Participant On-Boarding & Features and Functionality

RUHS-BH Help@Hand Peer Support Specialist contacted referred participants to engage the consumer and further describe the expectations and benefits of participating in the pilot. If the consumer agreed an orientation appointment was set with a Peer at a location convenient to the consumer. Sometimes the orientations were done in the clinic sometimes at a home visit or other community location. The orientation appointment was designed to be a welcoming and engaging process. The RUHS-BH Peer Support staff designed a Welcome Packet to use during the orientation. The Welcoming packet included a consent to participate in the pilot, which outlined the benefits and responsibilities of being in the A4i pilot, and the incentives consumers would receive for participation. The consumers were given a Smartphone with a phone plan including data. Participants were asked to sign a Device Agreement and Waiver for the Smartphone. The phone was preloaded with the A4i App and several other mental health digital tools. The Welcome packet also included content on the other digital mental health apps loaded on the phone.

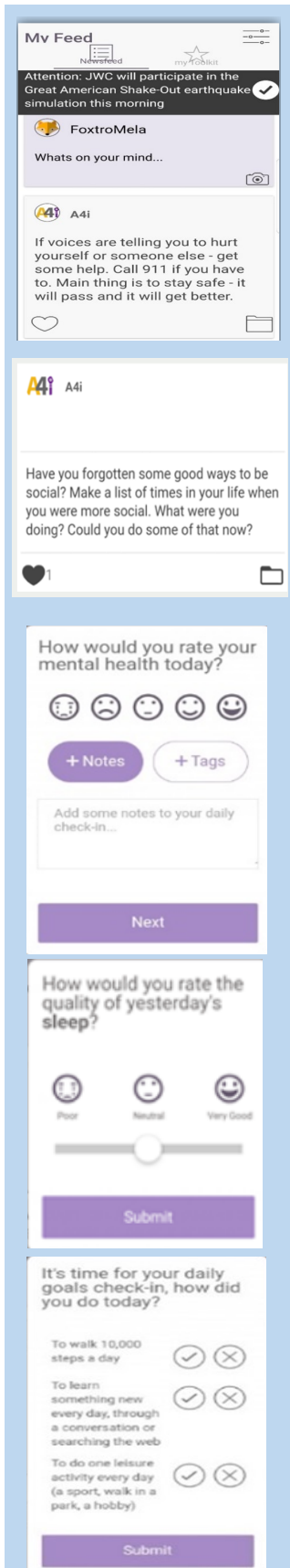
The RUHS-BH Help@Hand Peer Support Specialist also created work flow documents for the Help@Hand Peer team and the County clinic staff with enrolled participants outlining the process steps for entire pilot. In addition a manual with screen shots was created for the County clinic to use as a reference guide on the use of the A4i and how to view the dashboard.

Early in the pilot it was clear the Help@Hand Peer Support Specialist would need to support the County clinics with the functions that would typically be completed by the County Clinic "Care Team". The County clinics varied with regards to their need for this type of support. Help@Hand Peer Support Specialist moderated the post to the feed to ensure the A4i consumers' post could be put on the Newsfeed, and created and posted their own content to the Newsfeed to support consumers with recovery focused messages.

Peer Support Specialist also supported consumers with any technology issues with the County issued phone, and with challenges navigating the A4i App. The communication between the Peer Support Specialist and the A4i consumer proved invaluable in finding challenges with how the A4i app functioned. This communication combined with information from the one month interviews was relayed to the A4i developers, MemoText, during weekly meetings. MemoText was very responsive and creative in upgrading making adjustments and upgrading the A4i app features based on the feedback form users. These were rolled out as quickly as possible to support A4i consumers as they used the app through out the pilot.

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A4i Features and Functionality



Newsfeed

A4i has developed a “newsfeed” similar to a social media platform that allows user and providers to post content to a community of A4i users providing a safe space for support. Newsfeed content is reviewed by staff before it is posted including consumers posts. A4i directly delivers content to the Newsfeed. A4i created posts and prompts can be uniquely designed for each user’s need. These posts make suggestions and provide support and resources relevant to coping with symptoms of schizophrenia, psychosis, thought process challenges, motivation and anxiety. Each user’s posts can be tailored to their needs based on a short questionnaire.

Content on the Newsfeed was also generated by the Peer Support Specialist or Care team members. The newsfeed platform was interactive as the community of A4i consumers can also post to the feed. This provides additional content for support. Anonymous A4i users can support each other and react to post. A4i users can interact with posts on the news feed in two ways: by liking a post which will show for all the users, or by selecting the heart icon. User could save posts to a folder in the app tool kit for later use.

Daily Mental Wellness Check-In

This feature is especially important for an A4i user and the care team to track the users mood. This check-in appears in the clinical dashboard for providers to follow-up with their consumer based on their self-report of mood. A4i prompts automatically when the app is opened by asking, “How would you rate your mental health today?” User can rate themselves from sad to happy.

Daily Sleep Check-In

The feature functions similar to mental Wellness check in each day the user is prompted to rate their sleep quality. A4i also monitors mental health and sleep quality trends that can alert the care team members for negative trends, which will also trigger email notifications to the clinical staff.

Goal Achievement Check-In

The A4i app has a Goal-Setting tool to aid users on their journey to wellness. After setting up their goals the app will track goal achievements through check-ins. The daily prompt and data from responses provides the opportunity for the consumer to monitor their success. A4i will send support in the form of coping skills and suggestions to assist in their success as well as alert the care team when there are patterns of challenges. This feature is built in the A4i app to aid in the users’ success , and can be customized with the user’s care team during registration. Setting and meeting personal goals no matter how small is an important element to supporting the consumer on their journey to wellness.

A4i Pilot

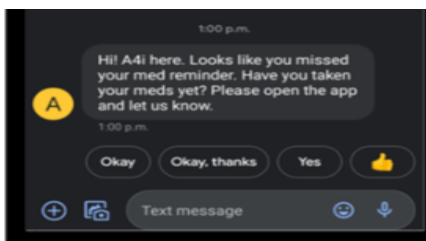
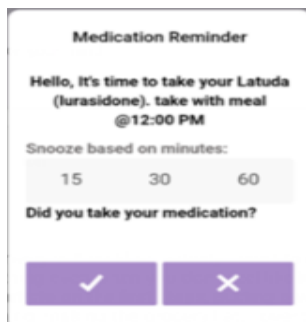
A4i Features and Functionality

A4i Features

Medication Reminders

The medication reminder feature is used to help support medication adherence and improve successful outcomes, and it can be customized for each medication name, time it should be taken, and any special instructions. Setting up medication reminders is simple and can be done through either the A4i app or the care team portal. Each reminder can be snoozed for 15, 30, or 60 minutes if it is not convenient to take the medication at the set time. Users are able to indicate when they have taken a medication ahead of time, if they have already marked the medication as taken the reminders for that medication and time is turned off. (*Note: only for medication reminders that are under the TODAY section set time*).

A4i also tracks medication adherence based on interactions and responses from the user over time to track adherence patterns and escalate notifications to clinical staff for “low medication adherence”.



A4i Pilot

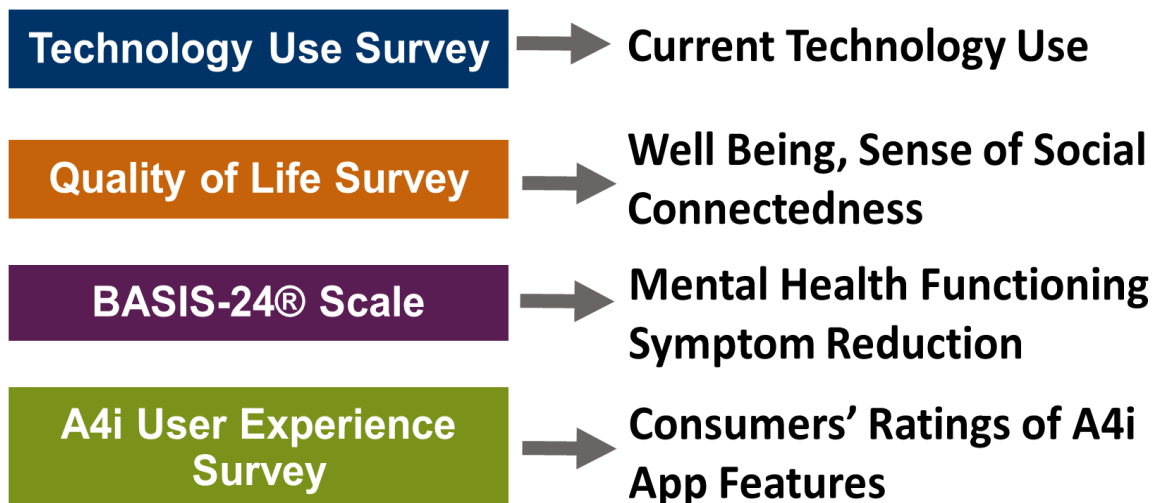
Evaluation Summary

The main goal of this pilot implementation is to test the impacts of using the A4i application in a real-world community outpatient setting to support consumers with schizophrenia spectrum disorders. This pilot will seek to understand if the A4i application is feasible to deploy in a community mental health clinic with the intended target populations. Program evaluation will examine the extent to which individuals with schizophrenia spectrum or other psychoses are able to efficiently utilize and benefit from the features of A4i.

Key Evaluation Questions:

- Evaluate pilot participants experience with A4i regarding acceptability, likeability, usability, usefulness of features, successful adoption (frequency of use, retention rate); and any variations in these factors among different target populations.
- Evaluate pilot participants reported increases in social connectedness; well-being; sense of connection to care team; and symptom reduction.
- Evaluate the impact of using A4i on consumers setting goals and goal attainment.
- Evaluate the extent to which the A4i technology can be used by the clinical care team to detect changes in mental health status that would prompt care team staff to initiate an intervention.

A4i Evaluation Survey Measures



Data collection for the pilot used an engagement approach . Since the Help@ Hand Peer Support Specialist (PSSS) were completing welcoming and orientations with consumers, they incorporated intake data collection into their welcoming and orientation process. The consumers received incentives for the completion of measures and qualitative interviews. The PSS maintained a tracking sheet to ensure they collected 3-month and 6-month follow-up data. The PSS also assisted with scheduling qualitative interviews with a graduate student from Claremont Graduate University to independently collect the interview data from consumers. PSS staff ensured consumers received their incentives for completing the intake, and follow-up survey packets.

A4i Pilot

A4i Pilot Measures

The figure below shows the A4i Data Collection interval schedule and the measures collected as pre-to post and those that were collected only once.

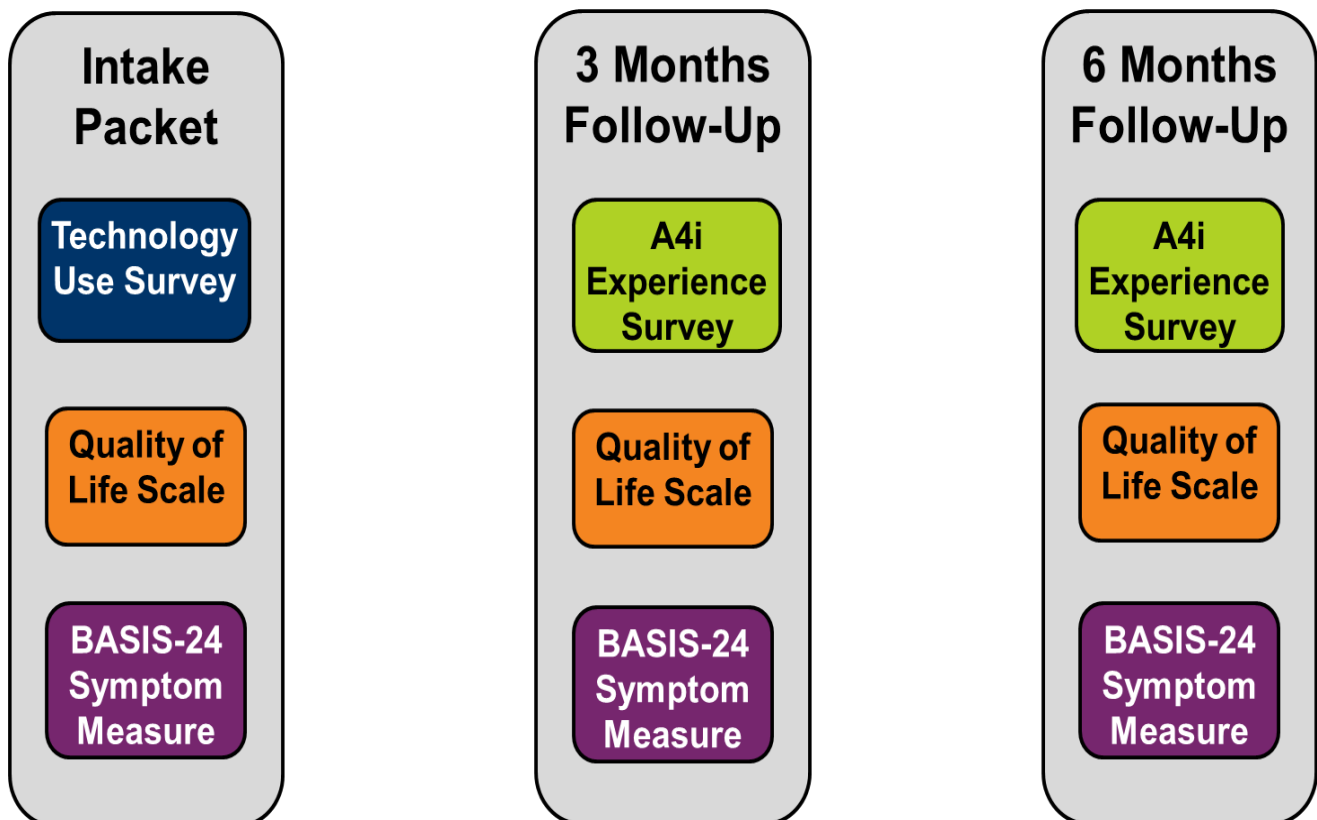
Technology Use Survey-This survey was used specifically to gather information on the participant's current use of technology including devices they use, any experience with technology, and experience with mental wellness applications. Participants were asked to complete this survey at intake. The survey consisted of 12 questions, and the questions focused on the use of phones, computers, and internet use (e.g. do you use any smartphone application, total number of hours/week of using computer/phone, what do you usually use your computer/phone for, etc.).

Quality of Life and BASIS-24:

Quality of Life and the BASIS-24 were collected 3 times to obtain pre, mid, and post data (a 3-month data collection was included in the event consumers left the pilot prior to the 6 month end of the pilot).

A4i Experience Survey:

This survey was used specifically to gather participants' experience with the A4i app and was also administered at 3 months and at 6 months.



A4i Pilot

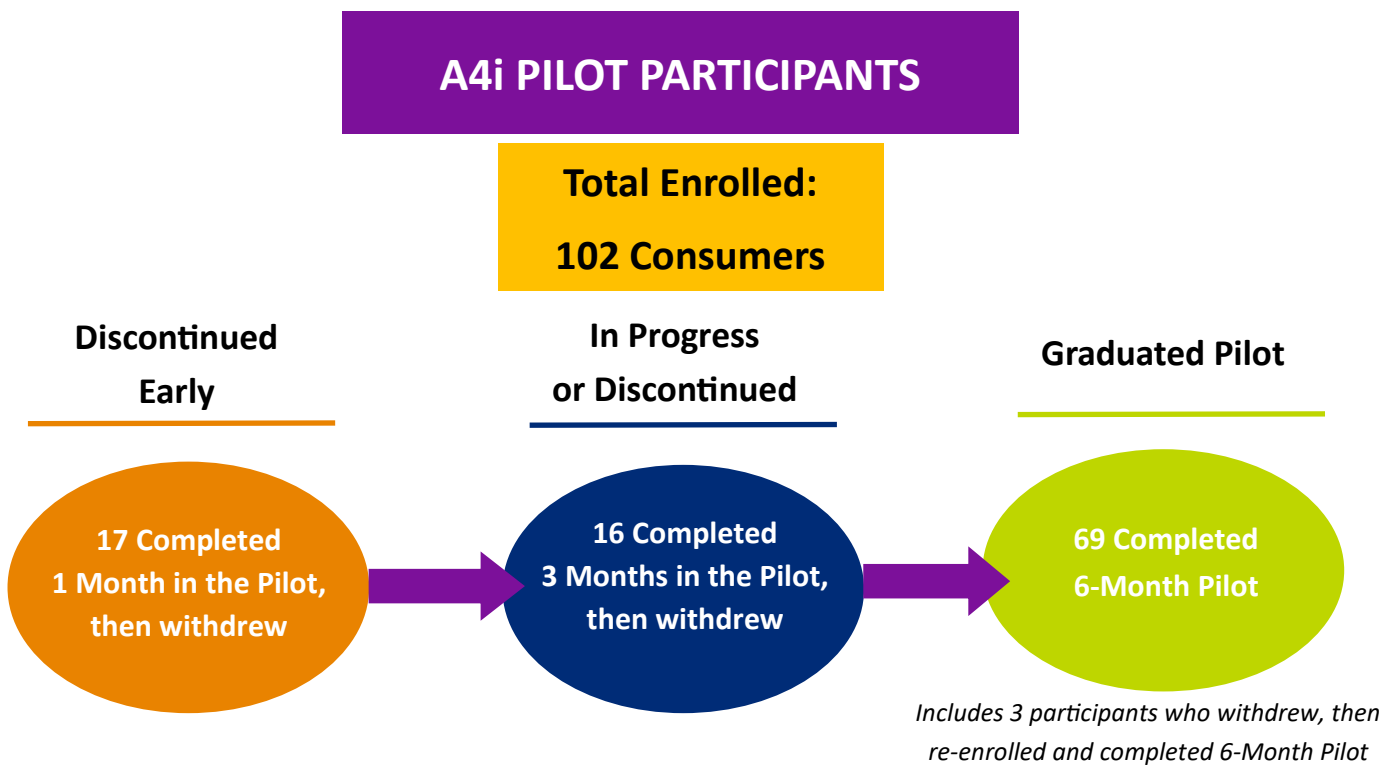
A4i Pilot Participants

A total of 102 consumers enrolled in the A4i pilot. Enrollment occurred between 2021 and 2023. The data below shows the pilot completion rate for the A4i enrolled consumers.

A4i Summary of Completion

Total counts of participants who completed 1 Month in the A4i Pilot (completed Intake Form, received A4i Phone, and registered as a user for the A4i Application) then withdrew from the program:	17
Total counts of participants who completed 3 Months in the A4i Pilot (completed Intake Form & 3-Month Outcomes) then withdrew from the program:	16
Total counts of participants who completed 6 Months in the A4i Pilot (including 3 participants who withdrew then re-enrolled and completed the program):	69

Total counts of enrolled participants: 102



PILOT COMPLETION RATE:

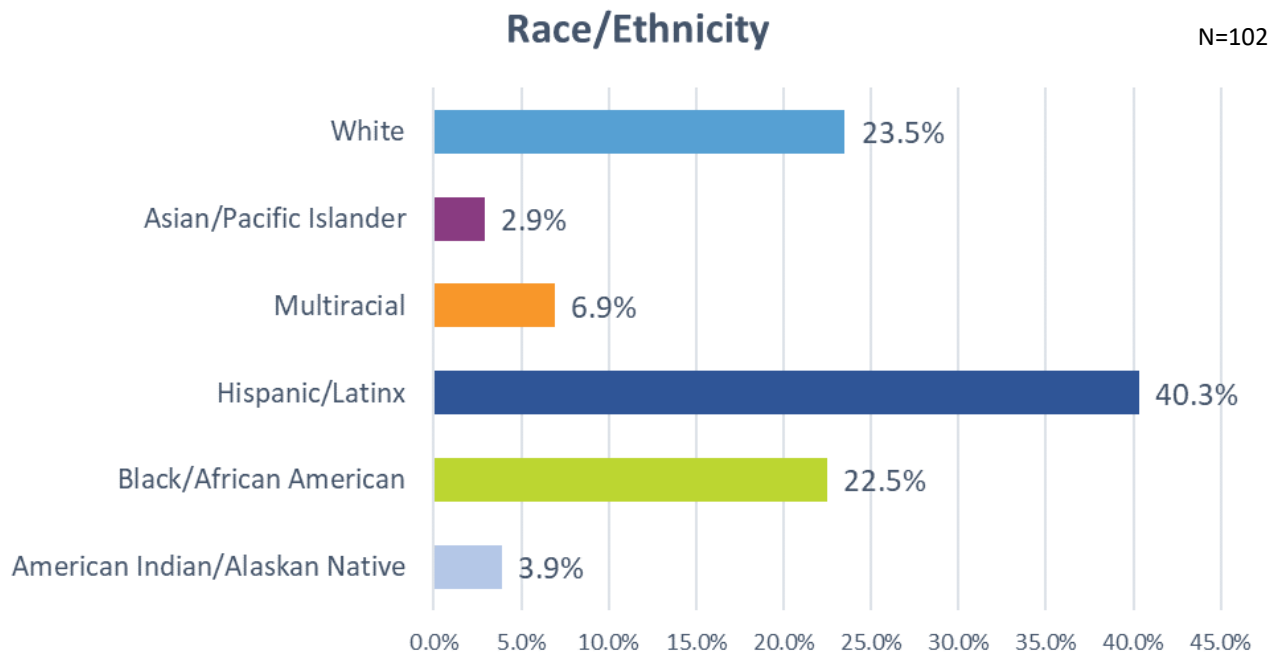
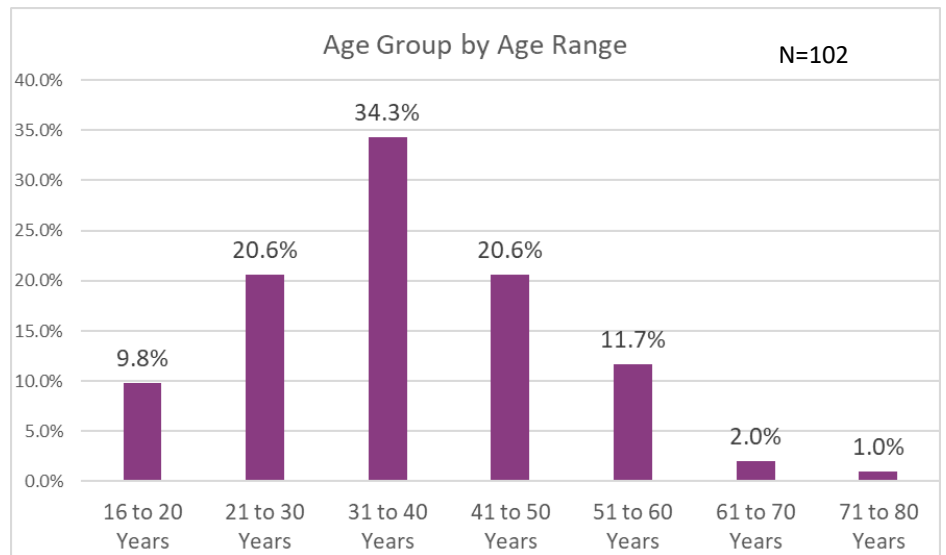
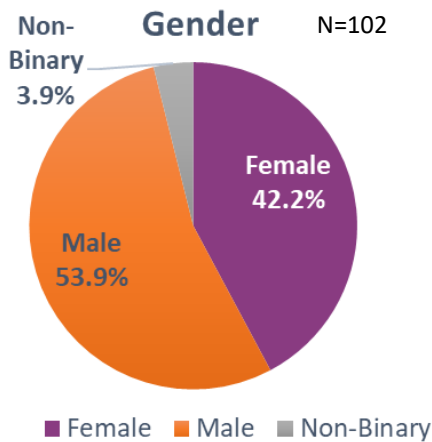
67.6%

A4i Pilot

A4i Pilot Demographics

The following figures provide the demographics of the A4i pilot participants (n = 102).

- More than half the A4i participants were Male (53.9%, n = 55), followed by Female (42.2%, n = 43), while 3.9% (n = 4) reported they were Non-Binary.
- Most A4i consumers were Adults (78.4% ,n = 80) between the ages of 26 to 59 years old, with many (34%)reported an age between 31 to 40 years old.
- The majority of A4i participants were Hispanic/Latinx (40.3%, n = 41), followed by White(23.35%, n = 24) and Black/African American (22.5%, n = 23). The remaining participants reported they were Multiracial (6.9%, n = 7), or American Indian/Alaskan Native (3.9%, n = 4), or Asian/Pacific Islander (2.9%, n = 3).

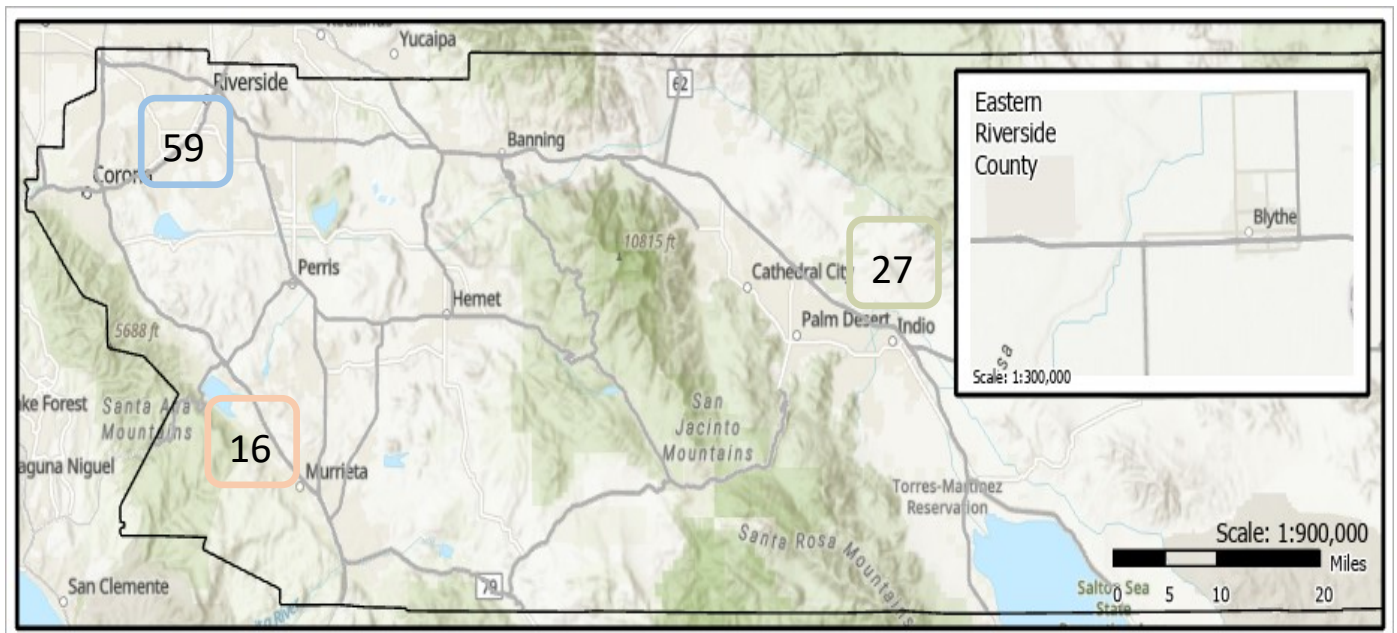


A4i Pilot

A4i Pilot Demographics

Additional demographics for A4i pilot participants (n = 102).

- 20% of A4i consumers reported they identify as LGBTQI
- 92% reported their preferred language as English.
- 59% reported that and a disabling condition and a few indicated they were Hard of hearing.
- The majority of enrollments in A4i: 52% occurred in 2023, and nearly a third (32%) occurred in 2022.



Western Region

West Adults FSP-27
Re-Entry Adult FSP-12
West Adult Clinic-9
Peer Support
Recovery Center -6
West TAY -1
West Older Adults-4

Mid-County Region

Lake Elsinore Adult
Clinic-9
Temecula Peer Support
Recovery Center-7

Desert Region

Windy Springs FSP-2
Indio Peer Support
Recovery Center-13
Desert TAY-12

A4i Pilot

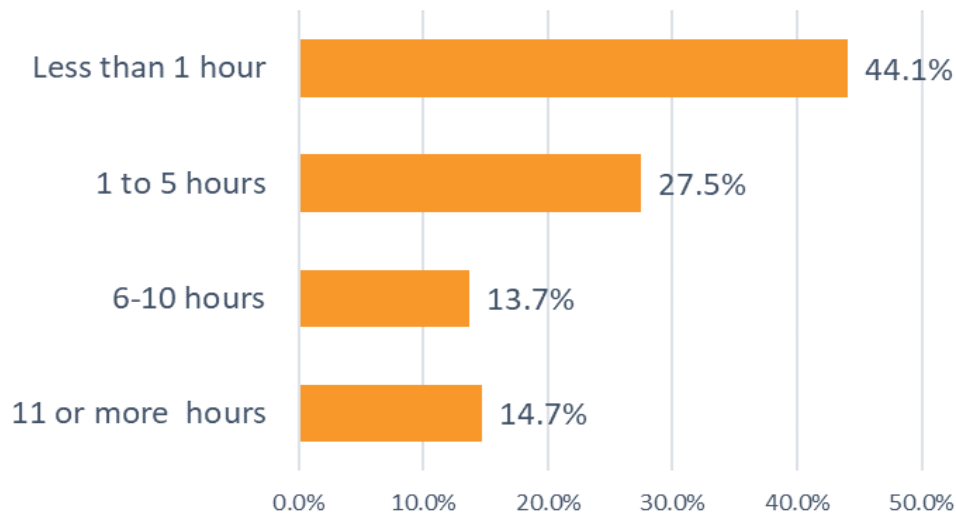
A4i Pilot Enrollment Technology Use Survey

Technology Use survey results showed:

- A4i consumers used technology devices, including Smart phones (88%), and more than half 58% use a laptop/desktop, a slightly less than a third used a tablet, 24% used a basic phone. Only 2% reported not using one of these technology devices.
- A4i consumers frequently used computers and their phone to access the internet.

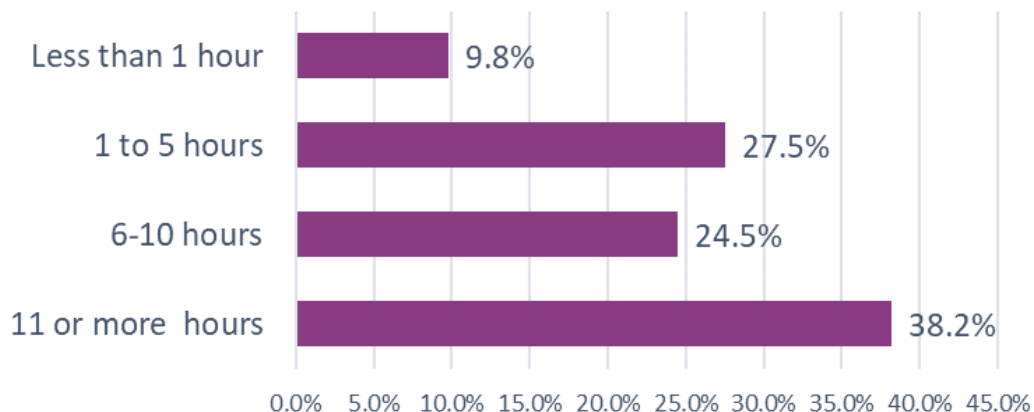
What is the total number of hours per week that you spend on a computer in your free time?

N=102



What is the total number of hours per week that you spend on a phone using apps or going online?

N=102



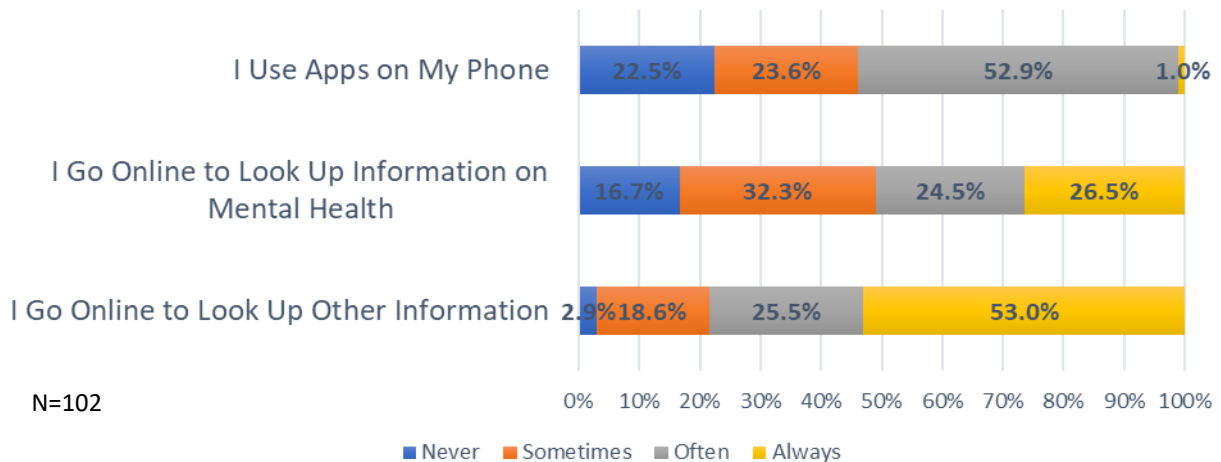
A4i Pilot

A4i Pilot Enrollment Technology Use Survey

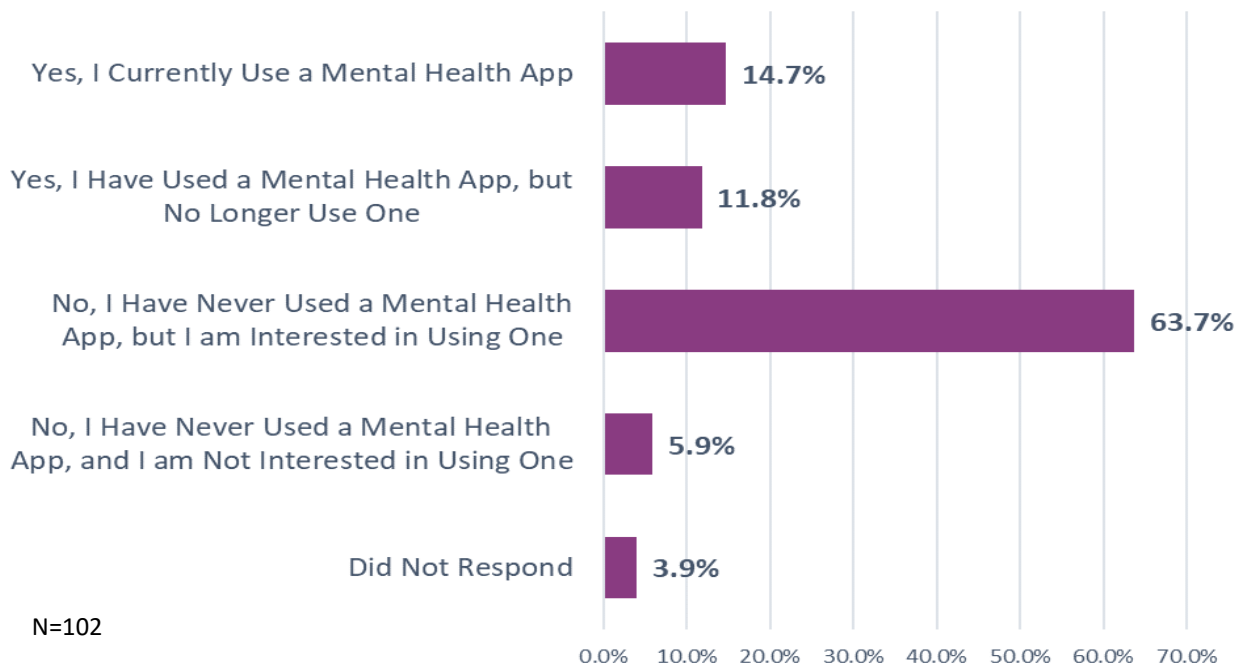
Technology Use survey results showed:

- More than half of A4i consumers (54%) reported they use phone apps.
- Half of A4i consumers (51%) reported they go online to look up information on mental health.
- More than three quarters reported they go online to look up other information.
- Nearly two-thirds (64%) reported they have never used a mental health app but were interested in using one.

How frequent do you do the following online activity?



Have you ever used a mental health app?



A4i Pilot

A4i Pilot Enrollment Technology Use Survey

Technology Use survey results showed:

- Most of A4i consumers (83%) felt confident *“Using their Phone or Computer/Tablet to Get Information”*
- Many (80%) reported they felt confident using phone apps

Comments and the types of apps A4i consumers have used were also collected. Below are a list of phone applications consumers reported using, and comments collected on the technology use survey.

Phone Apps Used

“I used A4i previously.”

“Calm, Calm Music.”

“Calm, Relax Melodies, Head Space.”

“Daily Journal, Wobot, Breathe, Fabulous.”

“DBSA App.”

“You Tube.”

“Finch, I am Sober.”

“Fixer App (IEHP).”

“I am Sober app.”

“Journaling app.”

“Meditation app.”

“Meditopia.”

“Web-Care.”

“WRAP.”

Internet Use

“I have never used a mental health app, but I looked up online for tips and advice to be a better healthier individual.”

“I never used one but I'm interested so I can be in tune with my emotions and find a healthy way to help myself cope with what I'm going through.”

“I tried using the phone app once. I don't remember what happened. I returned the phone and said I wasn't interested and would be going back to school. I would like to try again. My communication is just okay for me.”

“Nami Forum Board & YouTube.”

“Researched to learn more about apps.”

“Telehealth app for doctor appointments.”

A4i Pilot

A4i Post User Experience Survey

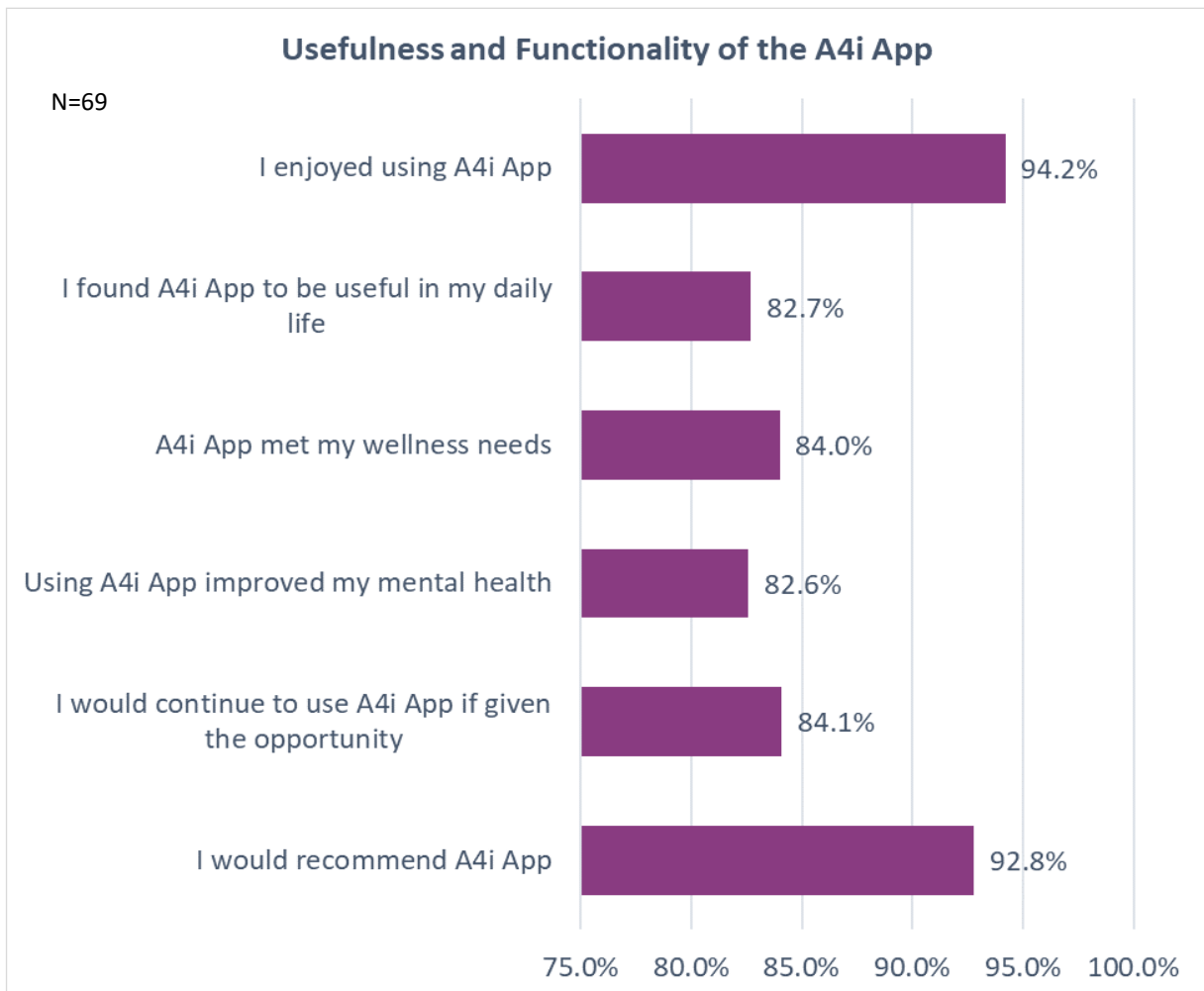
After participating in using the A4i app for at least 6–months consumers were asked to complete the A4i User Experience survey. Only data for those completing 6-months in A4i was used for analysis. The User Experience Survey had 38 questions focusing on the functionality of the app and any benefits the consumers believed they gained from using the app. The results of 69 consumers who completed the A4i pilot are included in the following data. Percentages below reflect “Agreed” or “Strongly Agreed” responses to the survey item statements.

Usefulness of A4i and Functionality

Most responses were positive with regards to usefulness and functionality. The top 4 were as follows:

- 94.2% enjoyed using the A4i App.
- 92.8% would recommend the A4i app.
- 89.8% thought A4i was easy to use.
- 86.9% thought the information on A4i is credible and trustworthy.

The figure below reflects items related to benefits of the A4i app and continued use of A4i.



A4i Pilot

A4i Post User Experience Survey continued

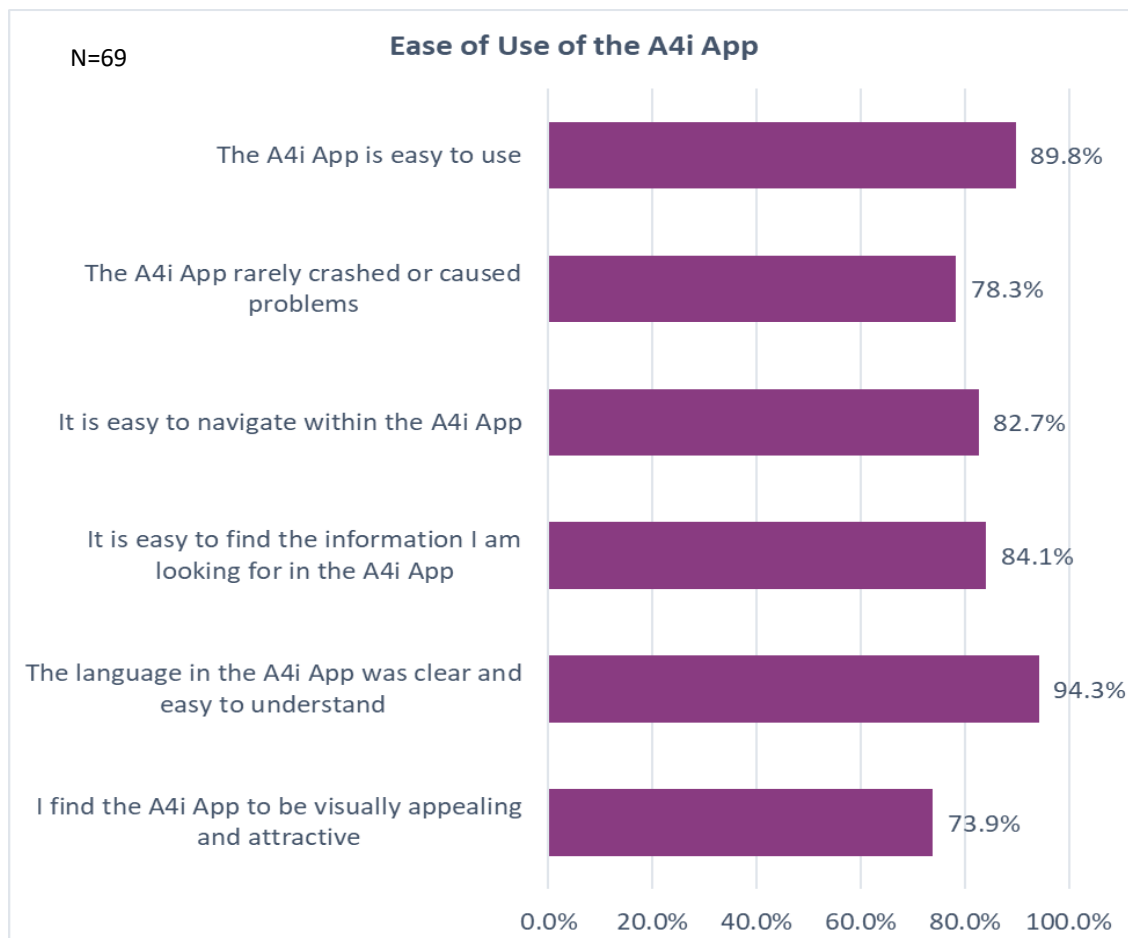
Most responses on ease of use were positive . However two aspects of the app had lower ratings on the survey;1). “I find the A4i app visually appealing” and ,2). “The A4i app rarely crashed or caused problems”. For these two items ratings were slightly more than 70 % were rated at agreed or strongly agreed. Early in the deployment of A4i, several features mostly the Check-Ins for medication, mood, sleep and goals were challenging due to the timing of when the check-in appeared in the app. It was early feedback from consumers that contributed to A4i developer upgrades during the pilot. This feedback was gathered in 1 month interviews and from PSS as they provided tech support for A4i users.

A4i Ease of Use

Most responses were positive with regards to ease of use. Percentages are agreed or strongly agreed with the item statement. The top 4 were as follows:

- 94.3% the language was easy to understand.
- 89.8% the A4i app was easy to use.
- 84.1% easy to find information looking for in app.
- 82.7% easy to navigate within the app.

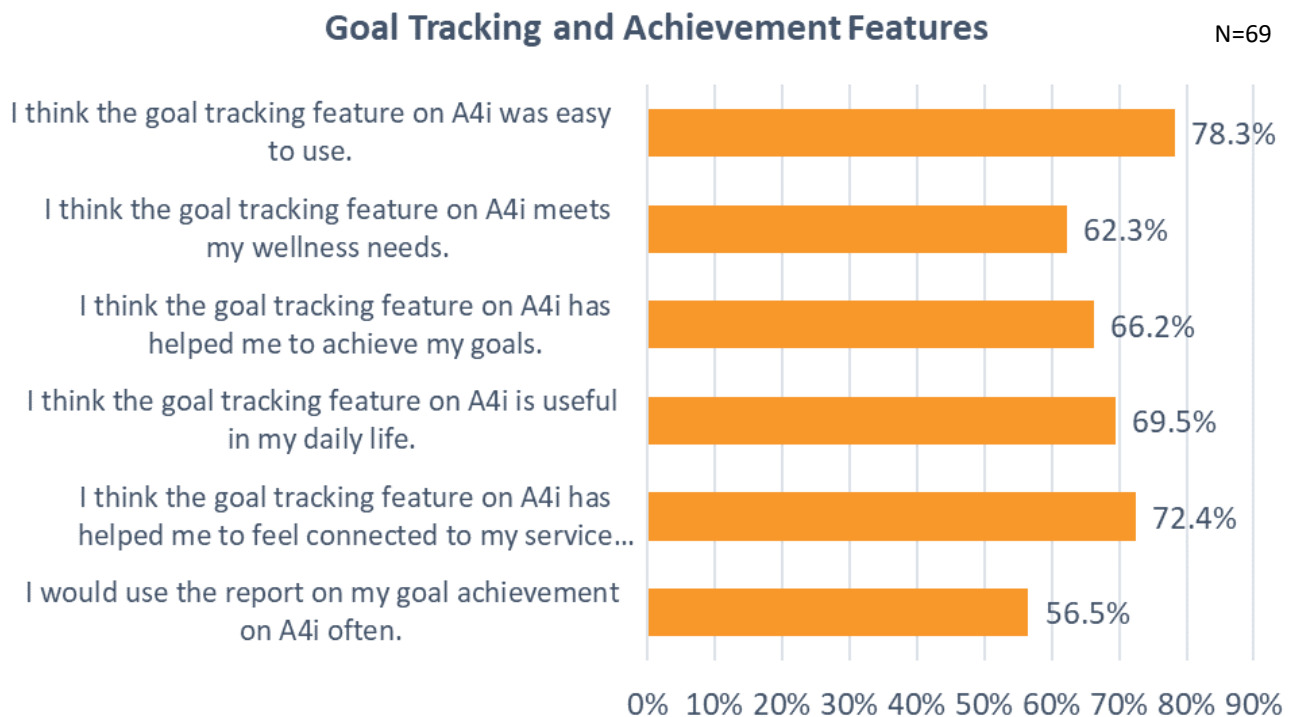
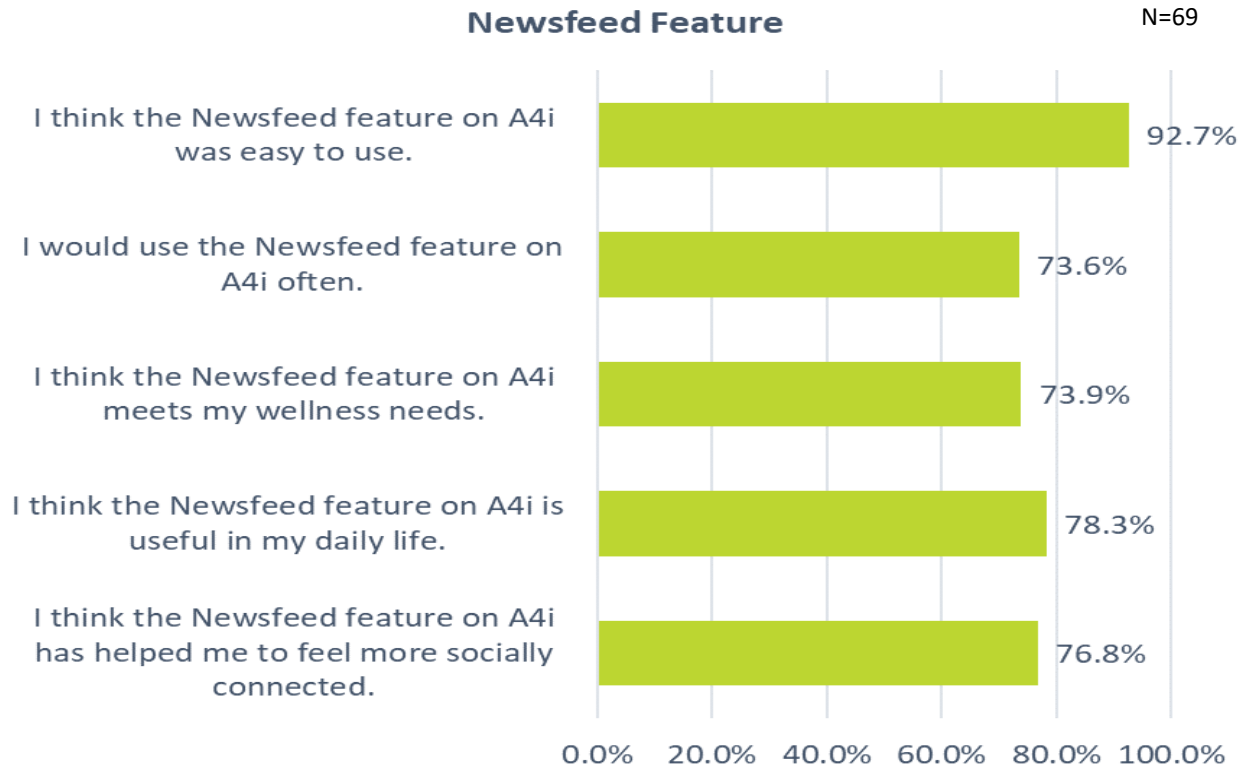
The figure below reflects items related to benefits of the app and continued use of A4i.



A4i Pilot

A4i Post User Experience Survey continued

User experience with specific features in the A4i app also showed positive experiences. In particular, the Newsfeed feature. The Goal tracking feature showed some positive responses as well. A4i app utilization data showed the Goal tracking feature was used far less often than the Newsfeed.



A4i Pilot

A4i Post User Experience Survey continued

Below are other items analyzed from the A4i User Experience surveys of graduated participants (n = 69). Percentages below reflect “Agreed” and “Strongly Agreed” responses to other A4i app features.

Content and Security

- ⇒ 75% of participants trust A4i with their personal information.
- ⇒ 87% of participants felt that the information on A4i is credible and trustworthy.
- ⇒ 96% of participants felt that the content in A4i is appropriate for them.

Costs of Using A4i

- ⇒ 93% felt they have the resources necessary to use A4i app.
- ⇒ Only 13% felt concerned about the costs associated with using A4i app.

Culture and Values

- ⇒ 89% felt A4i values and respects cultural differences
- ⇒ Only 46% felt that A4i demonstrates knowledge about their culture, while 23.5% felt neutral.

Notes Feature

- ⇒ 81.2% felt the Notes feature on the A4i app was easy to use
- ⇒ Only 50.0% used the Notes feature often, while 23.5% felt neutral about using the Notes feature

A4i Pilot

A4i Utilization Data

Utilization data was available directly from the A4i app. Files of user activity in A4i were provided on a monthly basis. In examining the consumers' use of the A4i features, the data was analyzed based on the number of times consumers engaged in the activity in the app. User data directly available from the app is recorded as an activity logged. Using this data it was possible to determine how frequently a feature was used.

User Engagement Data by Activity Type

Posting to Feed

- 91% of consumers used Newsfeed feature.
- 28,290 "Post to Feed" were recorded.
- 92% of consumers used the feature at least 10 times .

Notes to Care Team

- 65% of consumers used "Notes to my Care Team" feature. At least once.
- 266 "Notes to my Care Team" were recorded.

Medication Reminder

- 50% of consumers used the "Medication Reminder."
- A total of 13,082 "Medication Reminder" logs were recorded.
- 86% used the "Medication Reminder" feature at least 10 times.
- 94.2% confirmed in the app whether Medication was taken.

Goals Check In

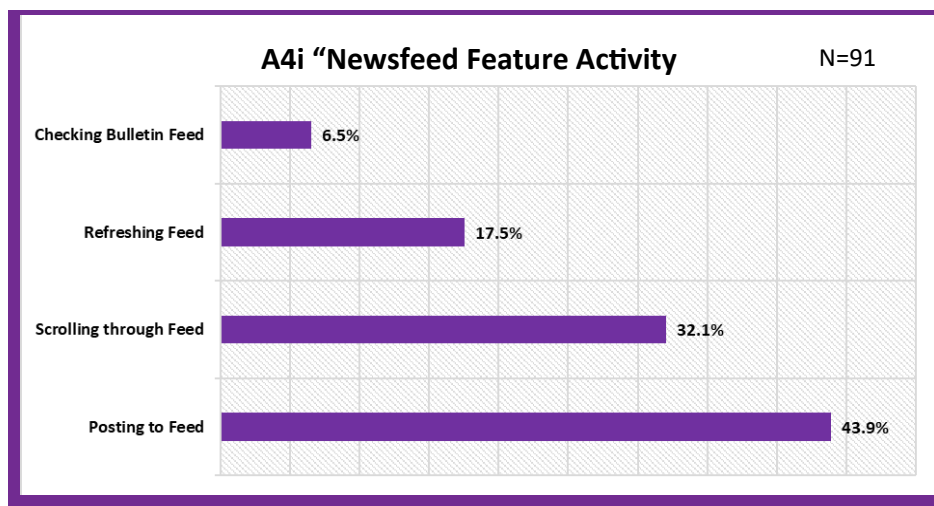
- 82% used the "Goals Check In" feature.
- A total of 5,461 "Goals Check In" logs were recorded.
- 78.6% used the "Goals Check In" feature at least 10 times.

Sound Detector

- 66% of consumers used the "Sound Detector" feature.
- A total of 1,003 "Sound Detector" logs were recorded, 46% were identified as "Correct Sound Detection".



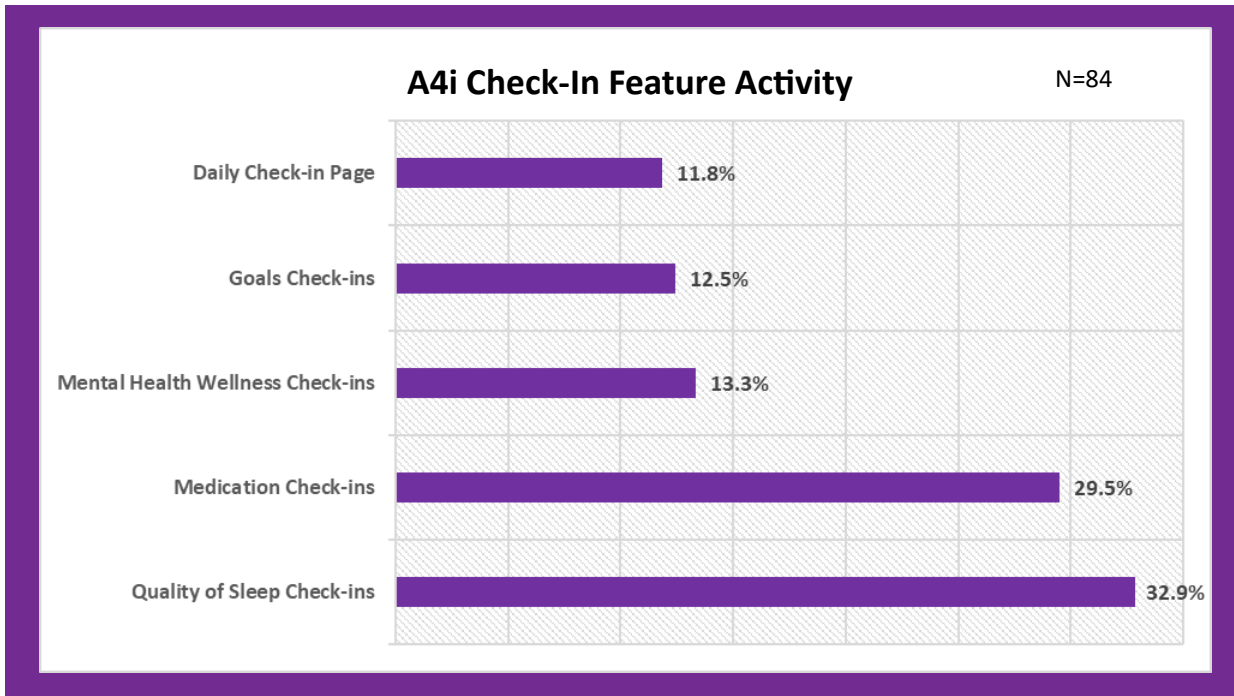
The Newsfeed feature was the most frequently used feature. Activity in this feature showed, consumers more frequently posted to the feed when they used this feature.



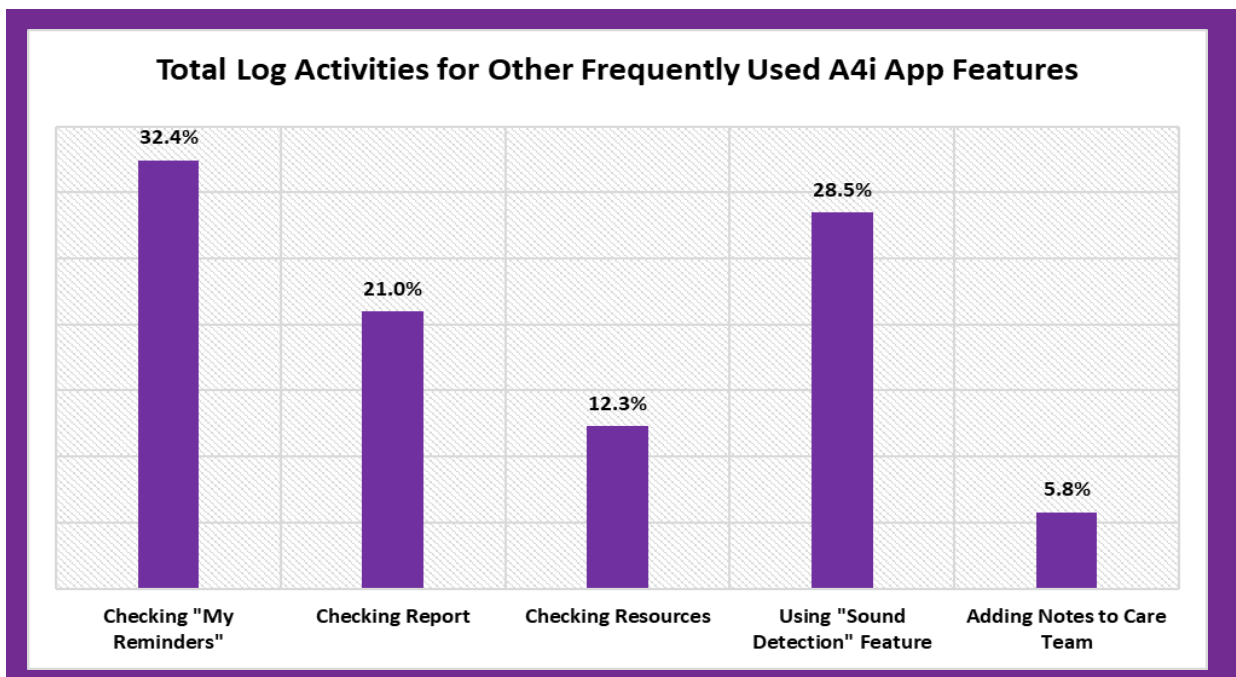
A4i Pilot

A4i App Utilization Data continued

The second highest most frequently used feature was the A4i app Check-Ins feature. The total combined activity logs for Check-Ins was **44,046**. Check-in activities were more frequent for *Sleep Quality Check-ins (33%)* and *Medication Check-ins (30%)*.



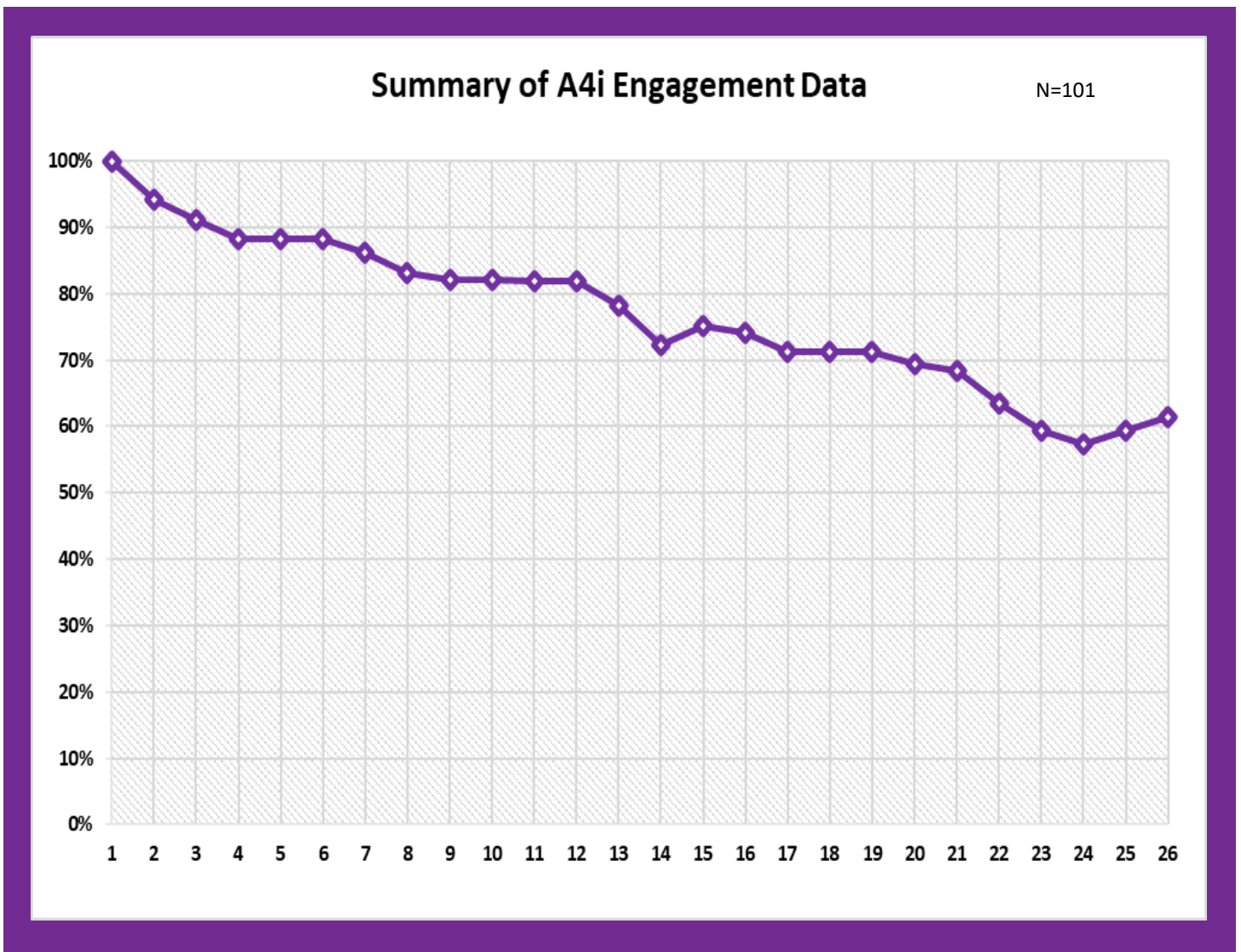
Other activities available in A4i included; My Reminder, Report, Resources, Sound Detector, and Notes features. The total count of activities for these 5 features was **4,625**. Of these, the most frequently used were “*My Reminder*” feature (32.4%), and “*Sound Detection*” feature (28.5%).



A4i Pilot

A4i App Utilization Data continued

A4i engagement data from 102 participants who enrolled, installed, registered, and engaged in the app showed fairly consistent use across the 6-month pilot. Of 102 participants who enrolled in the A4i pilot, 1 never installed the app, therefore the data is only based on 101 participants. Observed weekly, the following plot provides a summary of the proportion of consumers engaged in the A4i app each week of the pilot. There was some decline in use over time, however the rate of participation remained relatively high by the end of the pilot. The average engagement in the app each week was **76.9%**. The weeks are each consumers first week and so on, rather than just a representation of a six-month period.

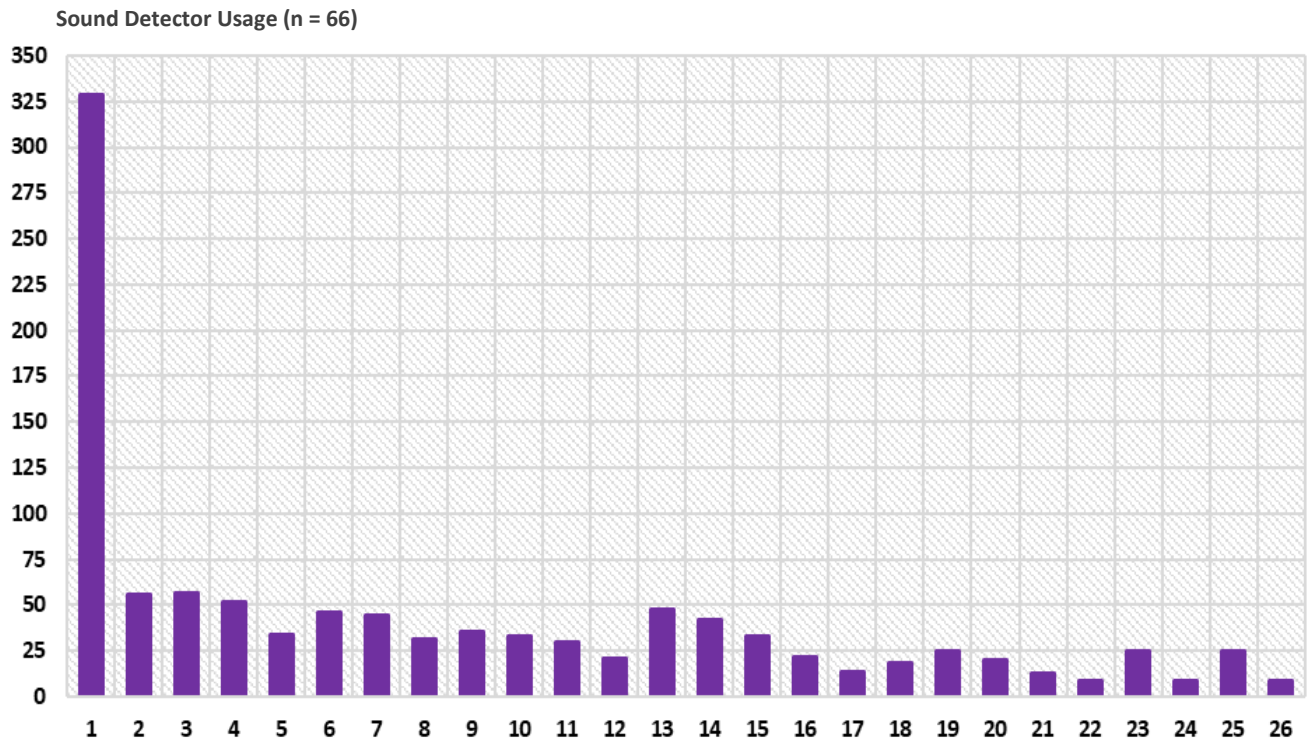


A4i Pilot

A4i App Utilization Data continued

Engagement in the sound detector feature across the 26 weeks varied with 66 of the consumers using the sound detector at least once. There was some decline in use over time. Observed weekly, the following plot shows the number of times the sound detector was utilized each week. The weeks are each consumers first week and so on, rather than just a representation of a six-month period. The initial spike in the first week could have been those testing out this feature. More consistent use was found among a smaller number of consumers. In qualitative interviews when asked about this feature some consumers indicated they did not have the auditory hallucinations symptom, while others relied on the sound detector and reported it was quite helpful for managing auditory hallucinations. Fewer consumers used the sound detector after the first month; approximately 20 consumers accounted for the activity on sound detector after the first month, and closer to the end of the pilot approximately 11 to 15 consumers were using the sound detector feature.

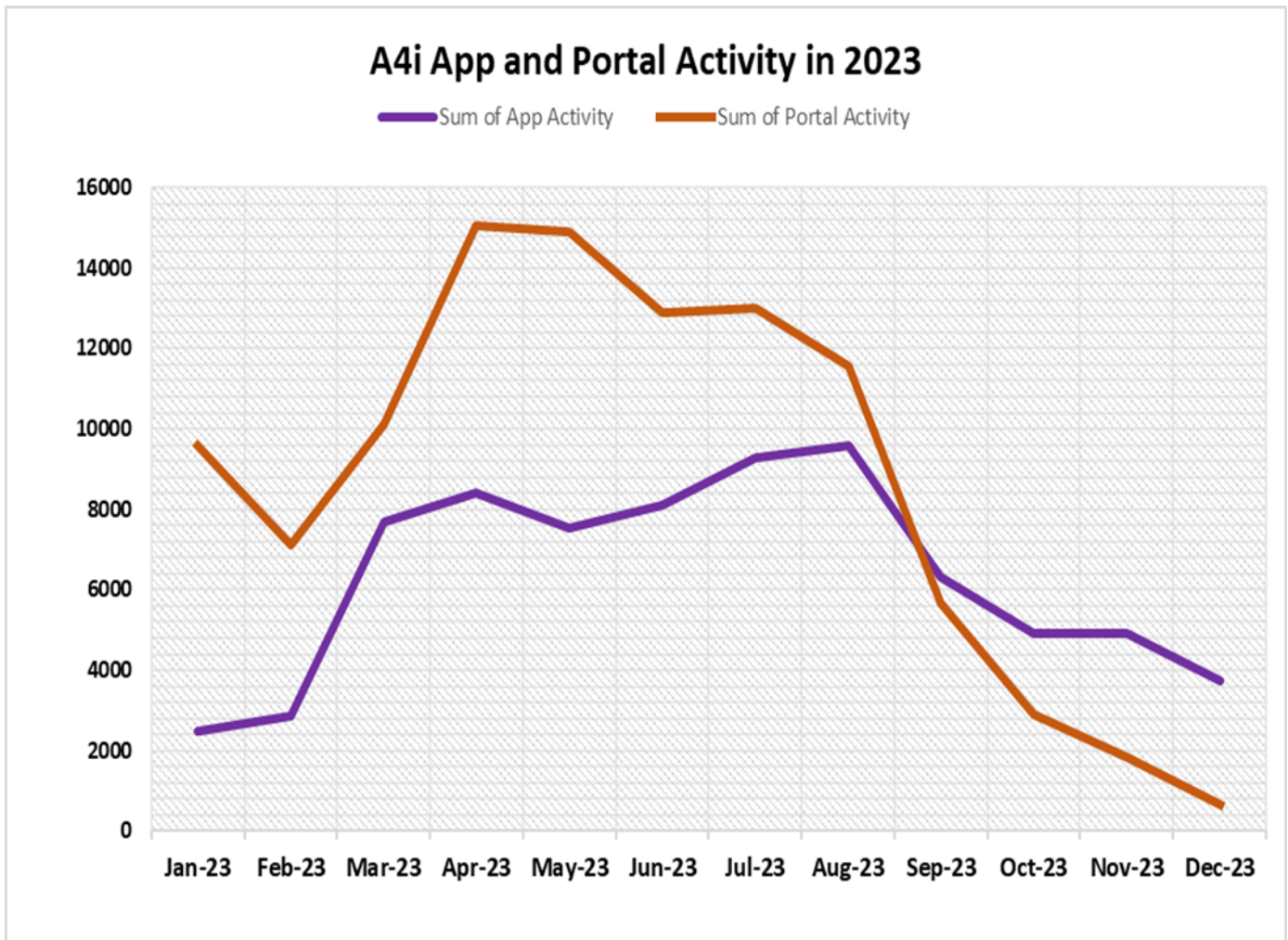
Engagement with Sound Detector



A4i Pilot

A4i App Utilization Data continued

There was some evidence of parallels in A4i app portal use by clinicians and the use of the A4i app by consumers. This figure below shows the monthly activities of consumer app users plotted with the Peer Support Specialists/Care team activity on the portal. The relationship between staff activity in the A4i app and the engagement of consumers became apparent in the qualitative interviews, where it was found that the consumers reporting high A4i use also reported the most communication and engagement with their mental health provider, and had discussed the use of the app with their Care team.



A4i Pilot

A4i Consumers Outcomes Evaluations

A4i consumers outcomes evaluation included measuring changes in quality of life, in particular increases in social connectedness, and well-being. Outcomes evaluation also included measuring symptom reduction and a sense of connection to clinic care team. A quasi-experimental pre-to-post data collection was implemented.

Pre-to-post outcome survey measures included:

- ◆ **Quality of Life Scale**—A 9-item questionnaire used to collect general quality of life, well being, and sense of social connectedness.
- ◆ **BASIS-24 Symptom Measure**—The Behavior and Symptom Identification Scale (BASIS) has 24 items measuring degree or frequency of difficulty/distress across several symptom domains (depression/ functioning, relationships, self-harm, emotional lability, psychosis, substance abuse).

Quality of Life Survey Results

The Quality of Life (QOL) measure was administered at enrollment into the pilot (pre-measure) and at three and six months. Since 50% of those that dropped out of the pilot dropped in the first month, post data analysis only included those that completed the six month pilot (N=69). Pre to post measures were compared for improvements in quality of life. The following table shows the percentage of consumers rating high satisfaction between 4-6 at pre measure and post and the percentage of increase. The increase is percentage of consumers that rated their QOL higher on the post measure. Overall, some improvements were found in participants self-ratings of QOL. *Emotional well-being* and *feelings about meaningful activity in their lives* showed the most improvement.

Quality of Life - Items (Meaningful Activity and Relationships) (n = 69) <i>Scale of 1 (Unhappy/Terrible) to 6-(Delighted)</i>	Satisfaction Increased—Ratings 4-6		
	Pre	Post	% Increase
1. How do you feel about your life in general?	47.8%	63.8%	33.5%
2. How do you feel about your emotional well-being?	43.5%	71.0%	63.2%
3. How do you feel about the way you spend your spare time?	52.2%	58.0%	11.1%
4. How do you feel about the amount of meaningful activity (e.g. work, school, volunteer, leisure) in your life ?	47.8%	65.2%	36.4%
5. How do you feel about the amount of time you spend with other people?	43.5%	65.2%	49.9%
6. How do you feel about the amount of friendship in your life?	53.6%	62.3%	16.2%

Quality of Life Survey Results

The Quality of Life (QOL) measure ratings on satisfaction with life and a sense of belonging are shown in the table below. Overall, dis-satisfaction decreased and satisfaction increased. The highest rating increase was in the *feeling of satisfaction with feeling a part of their community* at 81.8%.

Quality of Life - Survey Items (n = 69) (Satisfaction with Life and Sense of Belonging)	Dis-Satisfaction Decreased Ratings 1-4			Satisfaction Increased Ratings 7-10		
	Pre	Post	% Decrease	Pre	Post	% Increase
7. How satisfied are you with your life as a whole?	26.1%	17.4%	-33.3%	42.0%	66.7%	58.8%
8. How satisfied are you with feeling part of your community?	29.0%	24.6%	-15.2%	31.9%	58.0%	81.8%
9. How satisfied are you with your personal relationships?	30.4%	13.0%	-57.2%	43.8%	68.1%	55.5%

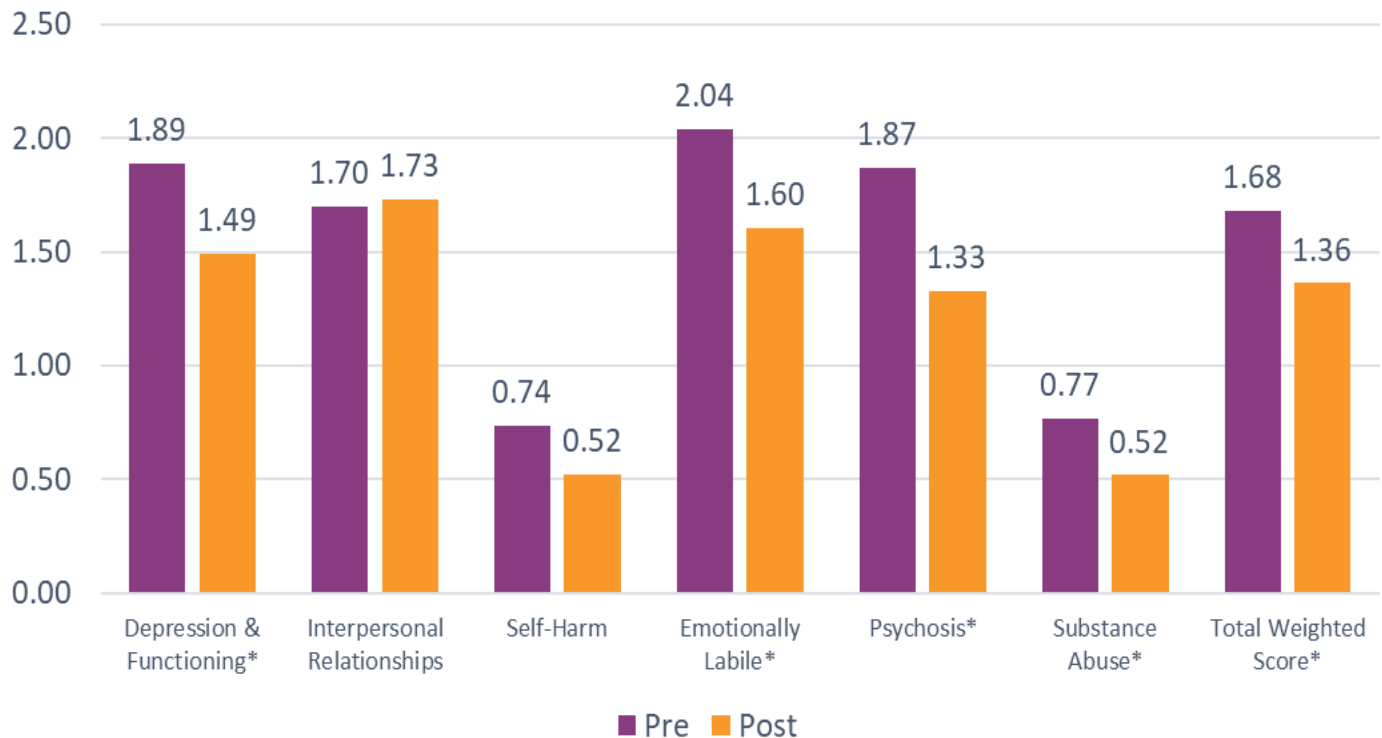
A4i Pilot

A4i Consumers Outcomes Evaluations continued

BASIS-24– Survey Results

The 24-item Behavior and Symptom Identification Scale (BASIS-24) measures six major areas of difficulty and/or distress including: Depression, Functioning, Relationships, Self-Harm, Emotional Lability, Psychosis, and Substance Abuse. Similar to Quality of Life Scale, the BASIS-24 measure was administered at enrollment and at 3-months and 6 months. Only data for consumers that completed 6-months of the pilot was included in the analysis. The responses from 69 A4i participants who completed the Pilot were analyzed using paired samples T-Tests. Overall, participants' scores on BASIS-24 improved with statistically significant decreases ($p < .05$) from baseline to post-measures in the following 4 areas: *Depression and Functioning* (-21.0%), *Emotionally Labile* (-21.4%), *Psychosis* (-29.0%), *Substance Abuse* (-32.4%), as well as on the *Overall Total Weighted Scores* (-19.1%).

BASIS-24: Pre-to-Post Measurement (n = 69)



* Statistically significant results ($p \leq .05$)

A4i Pilot

A4i Consumers Structured Interviews

Qualitative Analysis

As part of the evaluation process, interviews were conducted with A4i enrolled participants to gather their feedback on A4i, including features they used, challenges, and any perceived benefits of using A4i. Interviews scheduled at 1 month were done to determine if there were any technological issues or challenges the consumers were experiencing. This section includes data from the initial interviews, as well as final interviews.



Initial Interview—1 month after consumer enrolled in A4i and used the A4i app. 75 interviews were completed (88% of consumers enrolled).



Final Interview—6 months after consumer enrolled in A4i and completed the A4i pilot. 67 of the 69 graduates of the pilot participated in the final interview.

Key Findings from 6-Month Interviews

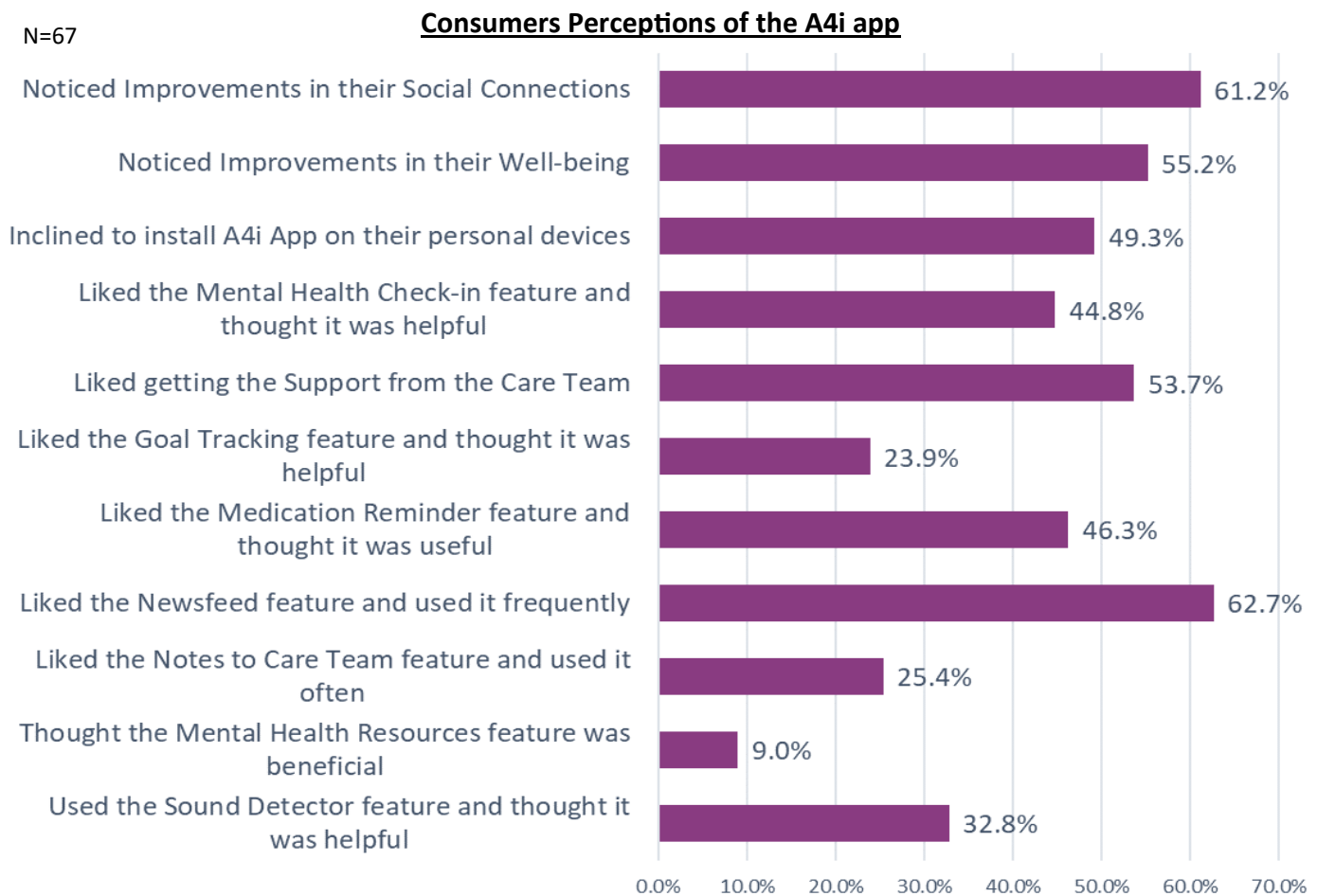
- ◆ **Increased Social Connections**—Most participants reported that A4i helped them improve their social connections. Several consumers expressed a heightened sense of belonging within a community that shares similar personal struggles after engaging with the app. One participant articulated that *“Knowing that there are people on the app, sharing their experiences and posting mental health quotes, allowed me to feel connected, knowing that others have shared experiences and I don’t feel alone.”*
- ◆ **Increased engagement**—Most participants mentioned that they liked the “Newsfeed” feature because it helped them to engage with other participants anonymously. Consumers enjoyed the Newsfeed commenting that it was similar to Facebook but aimed towards Mental Health. One participant noted, *“I liked it that when I go there I can post and also see other people’s posts. It keeps me in touch with people and I don’t ever feel so alone. I also get to share things that are going on in my life and it just makes me feel better.”*
- ◆ **Connection to Care Team**—Participants also liked the “Notes to my care team” feature because it helped them connect with their care team members, and they generally got responses right away. One participant expressed, *“I liked how I can just message my care team and I would get a response so I always felt connected like my problems were being taken care of.”*
- ◆ **Increased Support**—Participants also reported receiving valuable support from their care team via the app. Most participants expressed that the app facilitated easier and more accessible communication with their care support person when needed. Furthermore, they received significant emotional support from members of their care team. One participant articulated, *“I think it helped me a lot because there is someone I can reach out to if I’m feeling some type of way because there is no judgment. I feel like they actually genuinely care.”*

A4i Pilot

A4i Consumers Structured Interviews continued

- ◆ **Improved Well-Being**-Most participants mentioned that A4i *improved their well-being*. Enhanced well-being was expressed as a reduction in feelings of isolation and loneliness, increased self-awareness regarding mental and physical health, and a decrease in the impact of daily stress and anxiety. For instance, one of the participants highlighted how the app aided in medication management: *“The app helped me with my timing, particularly my medication intake. Using the reminders feature, I set reminders for 11 am and 11 pm. If I miss a dose, I see the reminder in the morning and take it then. It prevents me from accidentally double-dosing because I forget whether I’ve taken it or not.”* Another participant shared, *“The app helps because when I check in, it keeps me calm. It’s a significant support.”*
- ◆ **Resources**-Participants also expressed positive sentiments on the resources that were provided in the app, as well as other Mental Health apps that had been pre-installed on the County phones. The following apps were frequently mentioned as being useful to them: *TakemyHand, Sleep App, PTSD Coach, Mind Shift, YouTube, Wiser, Super Better, My Healthpointe, Happy Color, and Don’t Panic.*
- ◆ Most participants indicated they were inclined to **install A4i on their personal device** and would like to **continue using the A4i app** after completing the Pilot.

The following graph is based on the 6-month qualitative interviews and reflects the frequently of expressed experiences/perceptions of A4i from the consumers comments coded for themes.



A4i Pilot

A4i Consumers Structured Interviews Features Comments

Participants' Comments, Feedback and Experience from A4i Pilot and Reception to A4i App

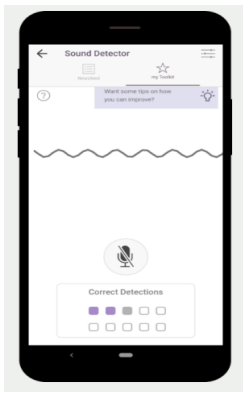


22 participants (32.8%) stated that they liked the **Sound detector** feature, although some noted that they did not use this feature often. Those who used this feature also noted that they liked how this feature provided tips on how to cope with hallucinations.

Sound Detector and Sound Analysis

Comments from participants:

- ⇒ *"I liked knowing that I could use this as a reality check, like I was hearing voices and I could test this to see if I really was hearing voices or if it was just a background noise. So that was good."*
- ⇒ *"I've used it but don't use it often. Sometimes just to check if I'm really hearing things."*
- ⇒ *"Well, I have schizophrenia. So every time I hear a sound, I use that because it helps a lot. Helps me knowing what sounds are only my hallucination or not."*
- ⇒ *"This tool has helped me with identifying noises. I liked it."*
- ⇒ *"I like this tool. It's helpful to go with paranoia. To see if I hear natural sounds, or if that's not real, you know? So I've used that like, a few times when absolutely needed and I thought it was great."*



Notes for My Care Team



17 participants (25.4%) mentioned that they used the **Notes to my care team** feature in the A4i app and liked that they would get direct responses from their care team.

Comments from participants:

- ⇒ *"I liked having a place like a journal where I can put notes to my care team."*
- ⇒ *"I liked having this because I can tell my care team when I needed space and they wouldn't bombard me either. She would still check in on me but kind of understood that, okay, I understand you're tired."*
- ⇒ *"I liked how my care team helped me realize that mental health issue is real, like really real and also helped me that I wasn't alone in this. I didn't even realize how much support I got and how much they were supporting me. Even the posts helped."*
- ⇒ *"I liked how I can just message my team and I would get a response, so I always felt connected like my problems were being taken care of."*



A4i Pilot

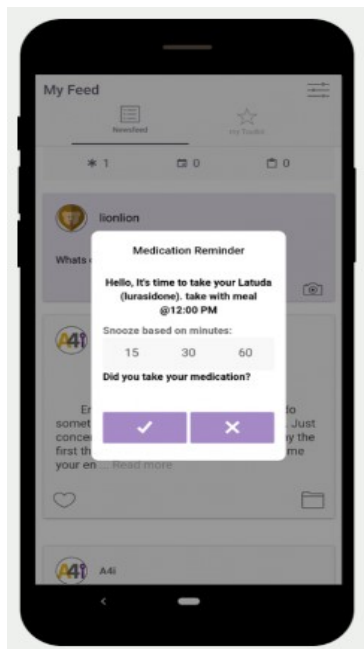
A4i Consumers Structured Interviews Features Comments

Participants' Comments, Feedback and Experience from A4i Pilot and Reception to A4i App



31 participants (46.2%) noted that they used the **Medication reminder** frequently, and liked how it helps them with their regimen of taking medications.

Medication Reminders



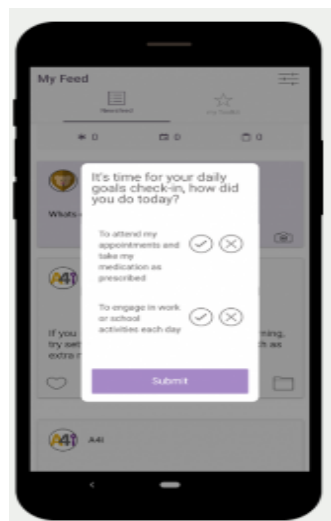
Comments from participants:

- ⇒ *"Once they fixed it and I found a nice rhythm of using it, I really liked using it."*
- ⇒ *"I think it helps more to be more consistent with my regimen of taking medications."*
- ⇒ *"I like it because I can logged my meds and that helps. I felt great."*
- ⇒ *"The medication one was a big reminder because at first I'd forget to take it and was confused, but now that I've been using that for a little over six or seven months, I just naturally take my medication before the alarm goes off. That was helpful."*
- ⇒ *"I've been up and down on everything, so for me to be reminded to take my meds through the app helps me a lot."*



16 participants (23.9%) mentioned that they liked the **Goal tracking** feature.

Goal Tracking



Comments from participants:

- ⇒ *"I'm bipolar so I'm like everywhere. Using goals tacking helped me to stay focused on my goals aspect on completing them and building up my confidence in the fact that I completed a goal to help me articulate better."*
- ⇒ *"The goal tracking helped me with staying consistent with my schedules and to actually follow through."*
- ⇒ *"I like to be able to track on the goals and things like that. It just feels like I'm on point with it or know where I'm at."*
- ⇒ *"I liked the goal tracking thing, it was helpful for me."*

A4i Pilot

A4i Consumers Structured Interviews Features Comments

Participants' Comments, Feedback and Experience from A4i Pilot and Reception to A4i App

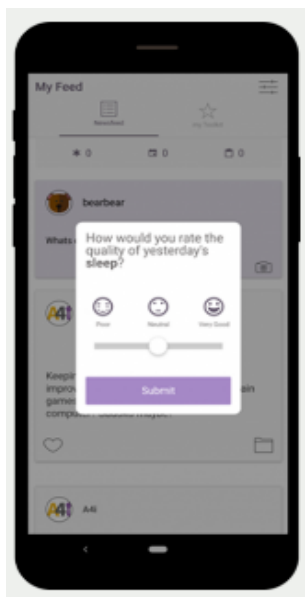
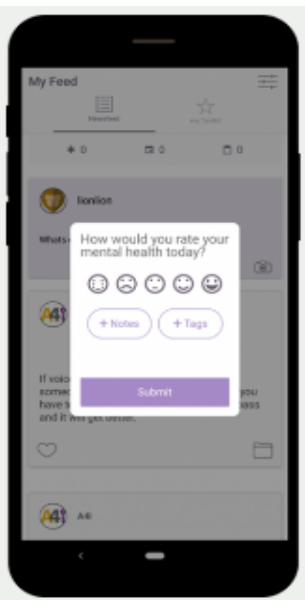


30 participants (44.7%) mentioned that they used the **mental health wellness check-ins** feature frequently.

Wellness Check-Ins

Comments from participants:

- ⇒ "I like how the app is asking how I was feeling for the day. I also like knowing that there were other people that were going through same things that I'm going through."
- ⇒ "The app gives me a social outlet when I check in. I like how it asks me if I took my meds, checking my mental state, and kind of gives me a reminder where I need to be and how I need to adjust so I can focus on myself."
- ⇒ "I feel like I'm being productive because I'm recording everything I'm doing. So it's like I'm more accountable for my actions, and that's helpful."
- ⇒ "I liked how let's say I have a bad day or bad mood or something, then I would get a call from my support person and she checked on me. Like how I'm feeling in the day, is everything okay? I thought things like that were great."
- ⇒ "I liked the daily check-ins, and that helped me set my day. I would plug in the responses and then it was kind of like, okay, a promise to myself that I was going to achieve those goals for that day."
- ⇒ "I think the check in allows you to keep awareness, like how you're doing, like your mental state. That allows you to be up to date and it puts it on the puts it on your, your radar, something that you start to think through because I think when you know, you know that you're just living life but you don't necessarily partake in realizing, how was yesterday, how was today. Tomorrow might be better but how would you know, it's like everyday is just everyday. But I think the check in is trying to tell you that you could kind of gauge life, like when you're upset or what's going on. So if I didn't get rest today, and then I don't feel good or anything like that. Then I can check in and kind of like, you know what, I didn't get much sleep yesterday so okay I'm going to try to do better, I'm going to try to get better. And honestly say like, using the check in, I started to manage my sleep more. I started to take note to learn something new does make my day a little bit better. So it's like I try to learn something new every day. I try to apply it for next time, and tell myself that it's not just all bad, like I can set a goal to myself to be better tomorrow, and I want to mark the smiley face all the way from now on."



A4i Pilot

A4i Consumers Structured Interviews Features Comments

Participants' Comments, Feedback and Experience from A4i Pilot and Reception to A4i App

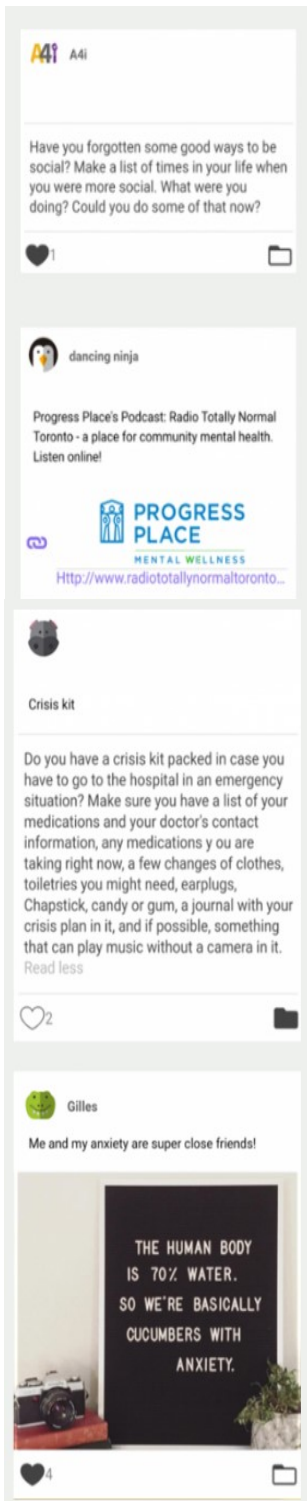


Most participants expressed positive sentiments toward the **Newsfeed** feature of the A4i app, and 42 participants (62.7%) mentioned that they used it frequently.

Newsfeed

Comments from participants:

- ⇒ *"I liked it a lot. It reminds me of a mental health Facebook, kind of. It's cool because everybody who's on this app has some mental health challenges, and we're here to see that people are doing good. It makes me feel better about myself knowing that if they can get through it, I can too."*
- ⇒ *"I liked posting and reading other people's posts because it reminds me to hang in there, or something like that. Sometimes when I post I know I won't get a response, but I already felt better by just getting it off your chest."*
- ⇒ *"I like knowing that there other people sharing their experiences with others and posting stuff like mental health quotes, and I like that. It allows me to also feel connected and don't feel alone."*
- ⇒ *"The newsfeed was really helpful for me because I felt like I wasn't alone. It felt like there were people who talk to you and people who know and understand that they had health issues too. So for me that was good. That was comforting."*
- ⇒ *"I like reading other's people comments on how the cope with their schizophrenia. And saying to continue moving forward with their lives so I felt better. Also I like being able to talk to someone at any given time and calling my support specialist and even telling them whatever it is. It's good to know."*
- ⇒ *"I've done, okay, I don't really have too many bad days, but there's times where moments start going sideways and so I go on and log into it and start reading other people's stuff. It makes me feel better. It takes me out of my head. Any kind of distraction you take me out of my head is a good thing."*
- ⇒ *"I like submitting my post on the newsfeed. And then the peer support team could read them and stuff, and then they get back to me. I liked that."*
- ⇒ *"I like seeing updates and everybody else' posts. You can like kind of see everybody else's words like, Have fun today, or Have a good day, or Happy Monday. Things like that, but it's been helpful, and I can honestly say it's really helpful when, when things are slow, or things are hard, because then it kind of keeps us focused because it's like a constant positive. You know, like, it's just you're reading like mostly positive things about other people. So it's kind of like, okay I also need to stay positive."*



A4i Pilot

A4i Consumers Structured Interviews Features Comments

Participants' Comments, Feedback and Experience from A4i Pilot and Reception to A4i App



41 participants (61.2%) expressed that their **social connections improved** after the Pilot completion.

Improvements in Social Connectedness

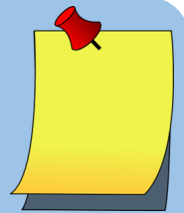
Comments from participants:

- ⇒ "I like knowing that when I get in there I can just see people sharing a little bit of what they are going through. I just thought it was just kind of a nice community to have and to be part of."
- ⇒ "I think it's good to be able to reach out to somebody and being able to have that connection right in your hand."
- ⇒ "The app encouraged me to seek outside interactions."
- ⇒ "The feeling of realizing that you are not alone is huge, huge deal for me. Maybe not everybody, but to people who have the same issues. It's a big deal, because I don't feel like I'm just some weirdo, because people actually going through the same exact thing I'm experiencing."
- ⇒ "I feel like having the online community like we could talk to one another. That was really helpful because I felt like I wasn't alone. That was comforting."
- ⇒ "I'm able to make connection and communicate with my peer support team. One of my peers even to court with me to show support, and I thought that was really nice. I also got some good advice from another peer."
- ⇒ "I'm anti-social and an introvert. I do go to meetings and meet people but I usually am not interested to talk. But this app helps me to open up a little more. Like, last month, I was in Walmart and was looking at an item, then this guy was looking at the same item and I had the courage to start a conversation with him about the item and I usually never do that."
- ⇒ "I did the panel for A4i and got to meet some more peers and other people from all over the county, different places. I liked that."
- ⇒ "I liked knowing that there is a place for me where I feel safe, and I could be social with other people and know that it is a safe place."



A testimonial from participant as posted on the A4i feed:

"When my voices tell me that I ought to feel certain things like lonely, I can now totally ignore them because I am never alone. Being alone when I work is not any more. I have my mama, and my peers. I rely on the A4i program also. Without A4i I may be very tired of my diagnosis and not continue in my therapeutic skills as often when I am at home. Thank you for this program for myself and my friends as well. A4i. You are so encouraging!"



A4i Pilot

A4i Consumers Structured Interviews Features Comments

Participants' Comments, Feedback and Experience from A4i Pilot and Reception to A4i App



37 participants (55.2%) shared they experienced *improvements in their well-being* after using A4i and completing Pilot.

Improvements in Well-Being

Comments from participants:

- ⇒ "I really liked the program. I think it's really helpful. I think a lot of people that, you know, not just for the County, but I think all the ones having mental health issues, would benefit from using this app."
- ⇒ "To me, it's almost like having a portable therapist. So you know, when you talk to a therapist, you kind of just have that time to yourself. Like having my own therapist whenever I need it. So that's what I like."
- ⇒ "I really think using the app has been helpful for my mental health and well-being. It has made a difference for me."
- ⇒ "The app has kept me on track. And that really helped me."
- ⇒ "It's a big difference for me. Because before this there was no one there and I had no will to get help from somebody else or anything like that. I would just go through it and I would just know I'm by myself, you know, like I'm going to do this alone. And now it's kind of like, I've had a turnaround. I want to be invested more. It feels great, it has been. It's made a huge difference for me. Huge."
- ⇒ "I really see this app going places, you know. Like going way further than a pilot period. I mean, we all got to start somewhere, right? But I see it going places. And the peers have been very helpful. And all the people behind them, you know, so it's just a great app. It's very healthy for me."



33 participants (49.2%) mentioned that they **would install A4i on their personal device** and **expressed interests in continued use of A4i app**. A few participants noted that they liked seeing the app on their phones because they felt like they can have the assurance that help is just a click away.

Comments from participants:

- ⇒ "I would recommend this app because it does help!"
- ⇒ "Yes I would install this app on my phone."
- ⇒ "I plan on downloading this app on my personal device. I liked having it on my phone."
- ⇒ "Well, every time I get on, there's always motivational things at the top. I'm pretty sure the people who works there put some app. But those are the reasons why I kept the phone, I mean I kept the app, not the phone. Because I like reading those motivational things, you know, like when I wake up in the morning reading something like that could help my day. So that's why I kept the app."



A4i Pilot

A4i Consumers Structured Interviews Features Comments

Participants' Comments, Feedback and Experience from A4i Pilot and Reception to A4i App



36 participants (53.7%) stated that they liked the **Support from Care team** throughout the Pilot and that the Care team gave them the motivation to continue.

Support from Care Team

Comments from participants:

- ⇒ *"If they weren't there, I probably could have done it on my own but probably would not do anything. But knowing that they look at my progress and then check on me and leave notes for me, it was like a natural light and a small Facebook for me. I also like how it tells us everyday, like good morning, to check messages and stuff like that. So for me that helps a lot."*
- ⇒ *"I liked the support and knowledge from the peer team like coaching and having someone there to talk to you about things."*
- ⇒ *"I really like how I can reach out if I'm feeling some type of way and there's no judgement. I feel like they actually genuinely care, you know. I was going through a little rough patch, and she was like, we haven't heard from you. How are you doing? It was consistent, you know. She didn't just text me one time. She texted me multiple times, just to make sure I was doing okay. And that's good. Because a lot of people in this day and age, they're not really worried about anybody else except for themselves. And I didn't feel that from the care team. They genuinely cared about me."*
- ⇒ *"At one point, I almost stopped eating. My peer support was with me every step of the way. It's like she knows exactly what I was going through and everything. Like she's got it on there, you know, and she wants to know exactly what I ate and all that because she wants to make sure I'm eating and I'm doing better. And it really helps when I can tell her my story."*



A heartfelt note from participant from the final interview:

"I want to commend you guys, for even thinking of this app or whoever thought of this app. I want to commend you for what you're doing with mental health, because this app is very helpful. It's very intuitive; reading, grabbing grasp of thinking that there is hope that we can overcome our mental disabilities. You guys made that somewhat possible for someone like me. I will retain a lot of aspects as far as mental health even somewhat suicidal tendencies that I had. You guys helped me overcome whatever emotions that I was going through and guide me to where I'm at now. And I thank you for that."

A4i Pilot

A4i Consumers Structured Interviews continued

Key Findings from Initial 1-month Interviews

Initial interviews were conducted approximately one month after participants enrolled and engaged in the A4i app. The feedback from the initial interviews completed in late 2022 and early 2023 contributed to A4i app development. The A4i app developers took into account the Pilot Participants' feedback as well as the Care Team's feedback in modifying the app features to be more user friendly. Overall, 31 participants expressed that there were issues with the app in the beginning of the pilot, but after getting help from the Care Team and after the issues had been fixed by the A4i team, most A4i consumers reported they liked the app. One of the most frequently mentioned issues was related to the **medication reminder** feature. Most expressed that the original earlier version in the app did not really function as a reminder, rather it was more of a check at a certain time of day to record if they had taken their medication. If they missed the check-in there was no way to go back and updated it which resulted in inaccurate results on the clinical dashboard. This feature of the app was updated to allow consumers to record their medication check in for the previous day. Check-in features had the times for notifications updated to be more in line with consumers activity which was also based on consumers feedback.

Challenges in Using A4i App

A small number of participants expressed that they encountered some challenges with A4i while participating in the Pilot, and some of their comments are noted below:

- ◆ 8 participants (11.9%) **did not find the app helpful** or felt that the **app made no difference** to them. Some also mentioned that they did not like having separate phones to carry.
- ◆ 4 participants (5.9%) noted they **did not get the support they needed** while they were in the Pilot. Some also felt that the app did not provide enough support for what they personally need.
- ◆ 7 participants (10.4%) noted that **the app was confusing**. One participant expressed, *"Maybe the daily goals are kind of hard for me because I work all the time and I just don't have time to do some of the goals that I have."* Another expressed that *"using the app was a headache,"* while the rest mentioned that *"the medication reminders really confused them"* or *"did not help much"*. One participant mentioned, *"I marked the medication on the bubble and when I check in in the morning and evening it just constantly says that I did not take medication so I'm not going to lie, I got frustrated and just stopped using the app."* A few of the participants also expressed that the sound detector feature was on the difficult side for them and it was hard to comprehend what it was and/or how to use it.

One participant expressed that the **A4i Pilot should have been made more extensive and longer than six months**: *"I feel like haven't really gotten the chance to dig into it and to really evaluate how each aspect of the app works in my daily living as a mental health patient and also as an employed person with a job. So I was saying maybe after 6 months is a good way to check in, but maybe the program should be like a year, you know, or 12 months before it actually concluded. Because in my situation, it would be so much more effective. Because I know that some people periodically get off the beaten path and you know, they're just at the wrong side of the trail. They can't keep up or they can't follow along anymore. And the program is built to be totally extensive, you know, a very careful, thoughtful way to introduce yourself and you're in the program to use the app and it's for people who really needs them. So I feel like for that reason, it should have been longer, like extended to 12 months."*

A4i Pilot

Future Directions

The collaboration with A4i continued after the conclusion of the Help@Hand Innovation. The partnership with MemoText has resulted in upgrades to the app and has provided opportunities for RUHS-BH to continue the availability of the app to RUHS-BH consumers. A number of consumers chose to continue using the A4i app and when needed were allowed to keep the phone provided in the pilot.
