Addressing Health Needs of Fibromyalgia Patients with a Digital Acceptance and Commitment Therapy

PRESENTER

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swing
Therapeutics

Background

Fibromyalgia (FM) is a chronic widespread pain syndrome often accompanied by additional disorders, including fatigue, sleep disturbance, difficulty concentrating, depression, and anxiety.

Symptoms vary and can be experienced in different ways by patients, and patients find certain symptoms most disruptive to their lives, leading to heterogeneity in individual's clinical needs.

However, clinical investigations of FM treatments have been largely focused on average improvement at the cohort level.

Patient-centered care emphasizes the importance of assessing treatments regarding their ability to address individual's needs.

This study sought to:

- Identify symptoms that limit the quality of life (QoL) of individual FM patients

- Evaluate the effectiveness of a smartphone-based acceptance and commitment therapy (ACT) therapeutic (FM-ACT) in addressing clinical needs at the patient level

Methods

FM-ACT

FM-ACT (*Stanza®, Swing Therapeutics, Inc., San Francisco, CA*) is an FDA cleared, Class II Prescription digital therapy that provides self-guided Acceptance and Commitment Therapy (ACT) for FM patients (Fig 4).

The program is composed of 8 core chapters along with reinforcement content to strengthen the learned skills. The core therapy is 3 months, followed by a maintenance period.

Each chapter consists of 4 to 6 therapy sessions, in which patients learn and practice core ACT skills related to processes of acceptance, values, present moment awareness, cognitive defusion, self as context, and committed action to build psychological flexibility.

The program also offers additional CBT-based interventions for chronic pain, including disease education, paced daily activities/exercise, and sleep.

Study Design

- Ongoing data from a real-world trial were analyzed.[1]

- Participants with FM received 3 months of FM-ACT treatment in the trial

Data Collection and Analysis

- Pre-treatment: Participant self-reported their top 3 most QoL-limiting symptoms

- Baseline and Post-treatment (Month 3):
  - Patient Global Impression of Change (Month 3 only)
  - Patient satisfaction with QoL
  - Clinical measures corresponding to FM symptoms (Table 1)

- Assessments were performed on patient-specific needs and post-treatment improvements on QoL and QoL-limiting symptoms.

Figure 1. % Participants improved in their top 3 most QoL-limiting symptoms (N = 66).
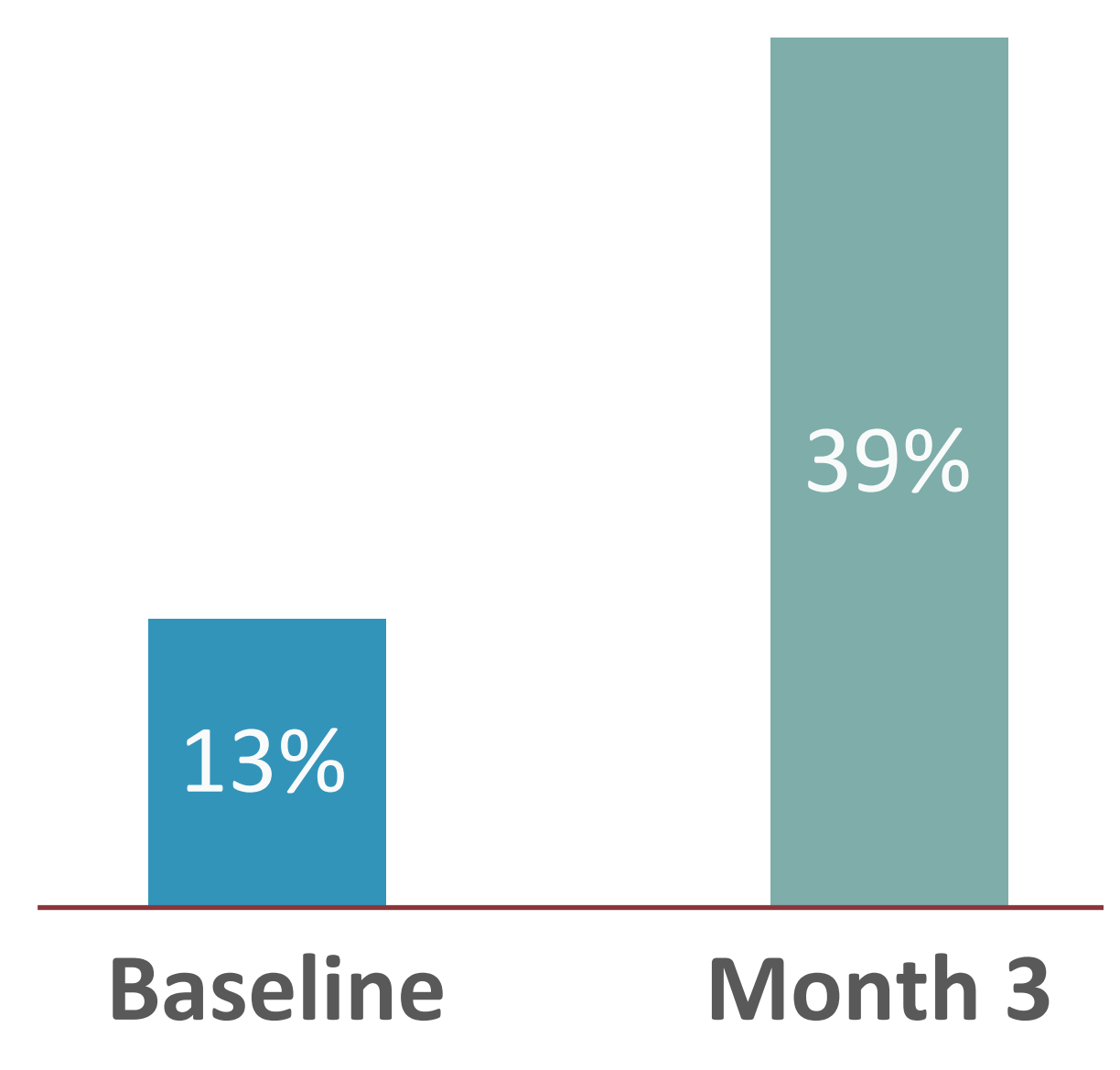
87% of participants improved in at least one QoL-limiting symptom

87%
50%
27%

Improved in:
≥ 1 symptom
≥ 2 symptoms
All 3 symptoms

Figure 2. % Participants reported satisfaction in QoL (N = 66).

3x participants satisfied with QoL after treatment

Baseline 13%
Month 3 39%

53% to 87% of participants improved across QoL-limiting symptoms

Fatigue (N = 47) — 53%

Cognitive Function (N = 43) — 67%†
Concentration 63%
Memory 49%

Pain Interference (N = 40) — 73%

Physical Function (N = 31) — 87%

Pain Intensity (N = 26) — 54%

Sleep Interference (N = 33) — 75%

Anxiety (N = 17) — 82%
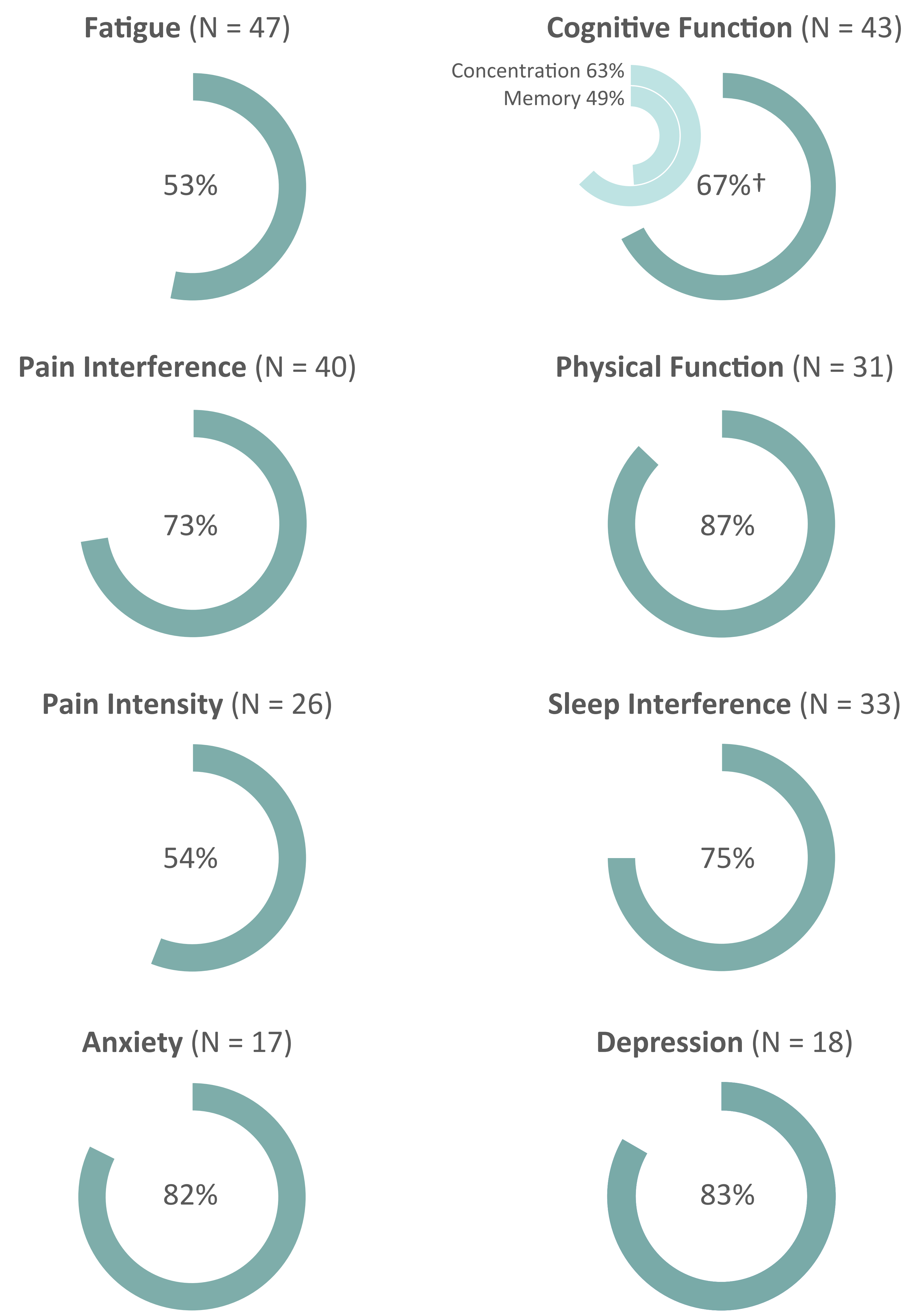
Depression (N = 18) — 83%

Figure 3. % Participants improved in each symptom (N: number of participants identified the symptom among their top 3 QoL-limiting symptoms pre-treatment). †Participants improved in at least one area (on "BDI-II concentration" and/or "FIQ-R memory").

Conclusion

The findings reinforced published cohort-level outcomes on FM-ACT[2,3] and demonstrated its benefit in addressing patient-specific clinical needs.
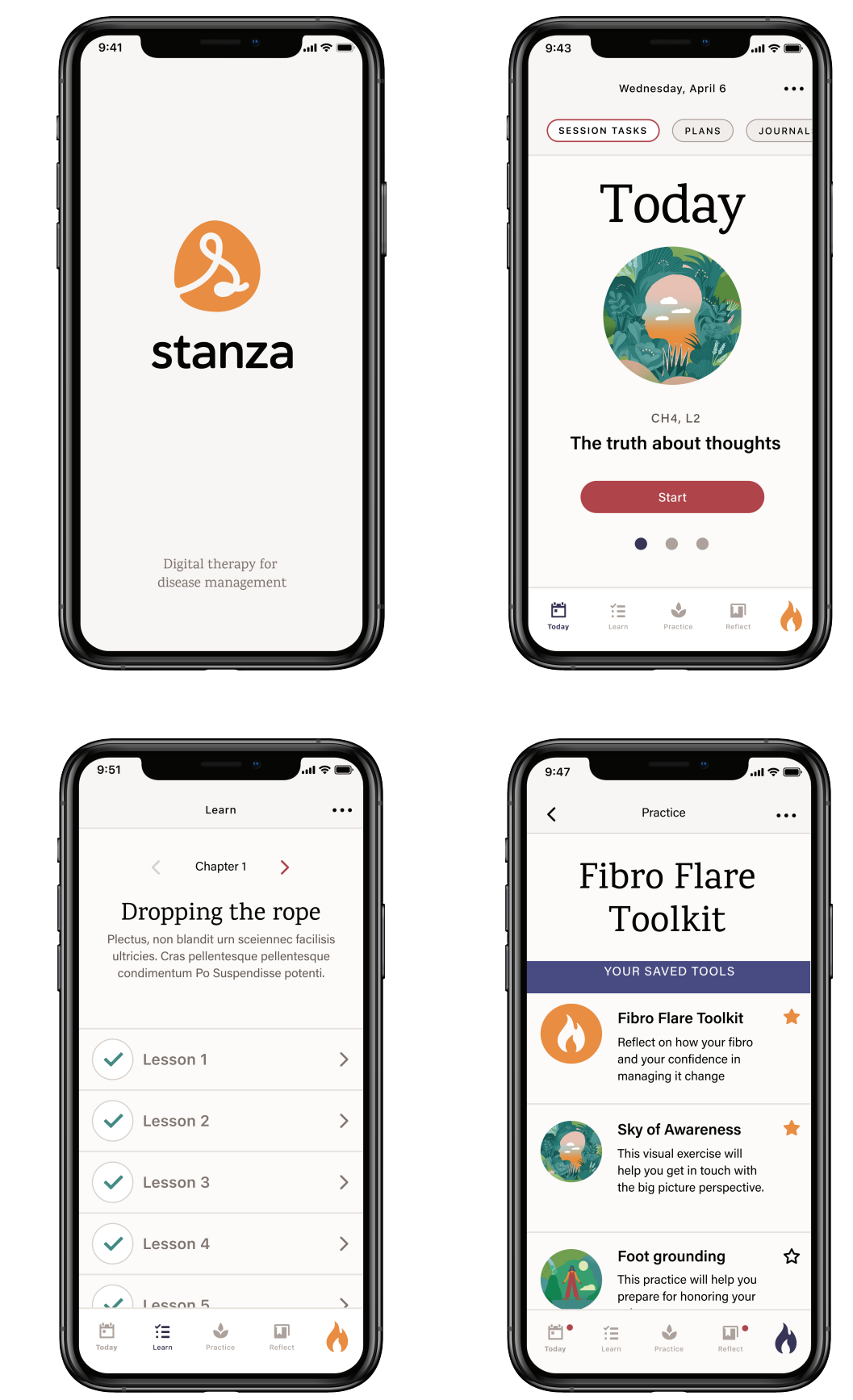

Figure 4. FM-ACT digital therapeutic application (*Stanza®, Swing Therapeutics, Inc., San Francisco, CA*).
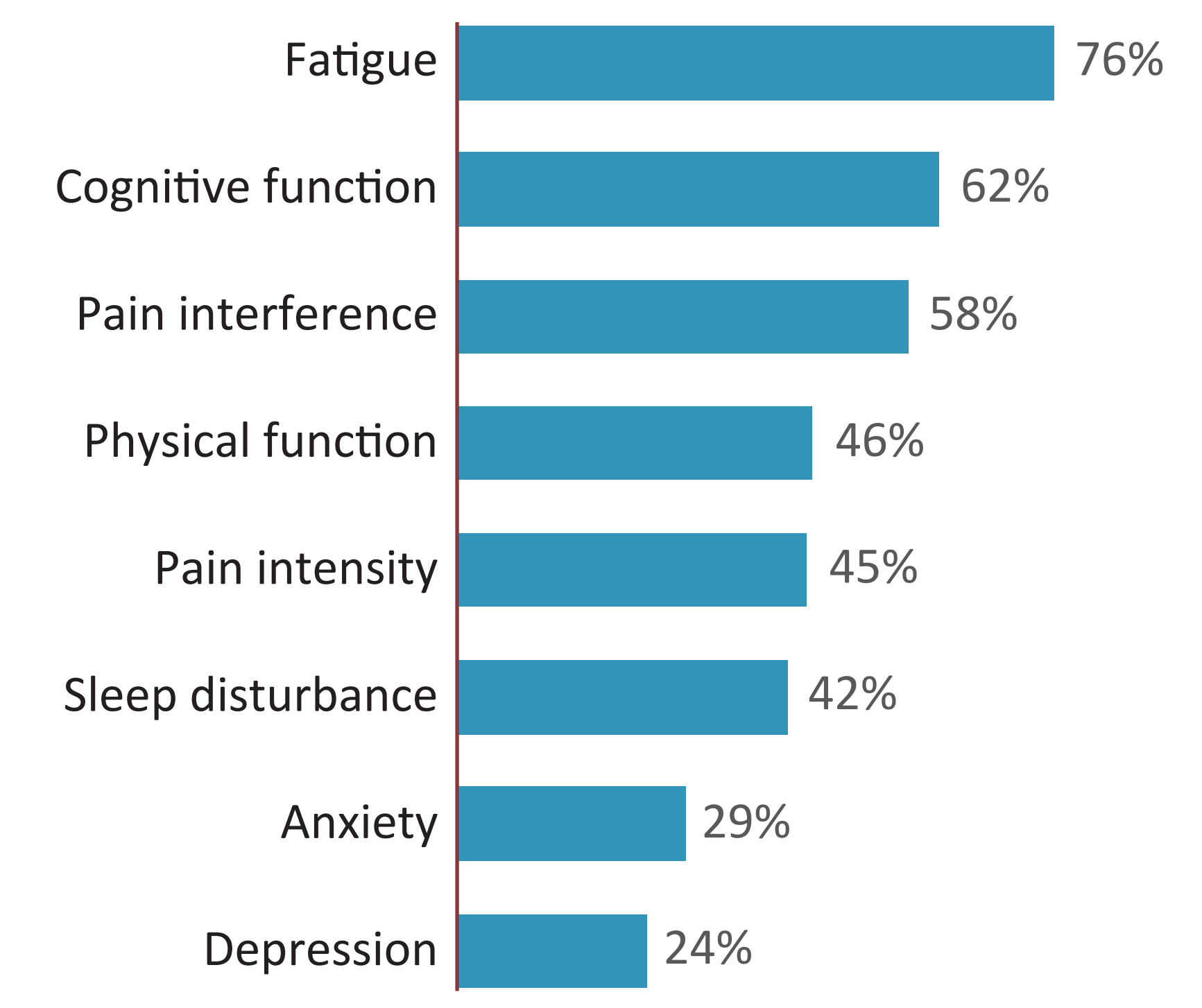

Fatigue — 76%
Cognitive function — 62%
Pain interference — 58%
Physical function — 46%
Pain intensity — 45%
Sleep disturbance — 42%
Anxiety — 29%
Depression — 24%

Figure 5. % Participants (N = 108) who reported symptom as in their top 3 most QoL-limiting pre-treatment.

Table 1. Measures used to assess post-treatment symptom improvement.

Symptom	Measure
Fatigue	BDI-II "tiredness & fatigue" item
Cognitive Function	FIQ-R "memory" item / BDI-II "concentration" item
Pain Interference	0 (min) - 10 (max) NRS
Physical Function	FIQ-R function domain
Pain Intensity	0 (min) - 10 (max) NRS
Sleep Disturbance	0 (min) - 10 (max) NRS
Anxiety	GAD-7
Depression	BDI-II

Key: BDI-II - Beck Depression Inventory; FIQ-R - Revised Fibromyalgia Impact Questionnaire; GAD-7 - Generalized Anxiety Disorder; NRS - Numerical Rating Scale

References

[1] REACT-FM, NCT05011162
[2] Catella, et al. J Behav Med. ePub
[3] Gendreau, et al. Arthritis Rheumatol. 2023

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