

Objective

To explore the details of exercise habits and as well as relationship with exercise among patients with functional hypothalamic amenorrhea (FHA).

Materials and Methods

Using a cross-sectional, mixed-methods design, an anonymous online survey using Qualtrics was developed. Participants were recruited through social media, online support groups and professional email listservs. Inclusion criteria were self-identifying as currently or previously having FHA and having primary or secondary amenorrhea > 6 months.

Results

There were 850 survey participants who met inclusion criteria. The most frequently experienced period of amenorrhea was 12-24 months (24.6%). Respondents were asked to indicate how many hours per week they participated in different intensities of exercise while amenorrheic. Across respondents, the average amount of time spent per week doing low intensity exercise was (9.96 hours), moderate intensity (6.91 hours), high intensity (5.99 hours), and high intensity intervals (4.59 hours), with each category meeting specific criteria described in detail. 54% of women with FHA were not doing any high intensity exercise or high intensity interval training.

Among the participants 55.9% had recovered their period or became pregnant before their first recovery period, 28.4% had not had a recovery period during the time frame surveyed, and 15.7% had recovered their period for one or more months, and then became amenorrheic again.

Results

Of the 47 participants who had recovered menses, participants were asked to indicate how many hours per week they participated in the same exercise categories when no longer amenorrheic. Reports of the average amount of time spent per week on low intensity exercise (8.41 hours), moderate intensity (4.78 hours), high intensity (3.57 hours), and high intensity intervals (2.35 hours), with each category meeting the same specified criteria.

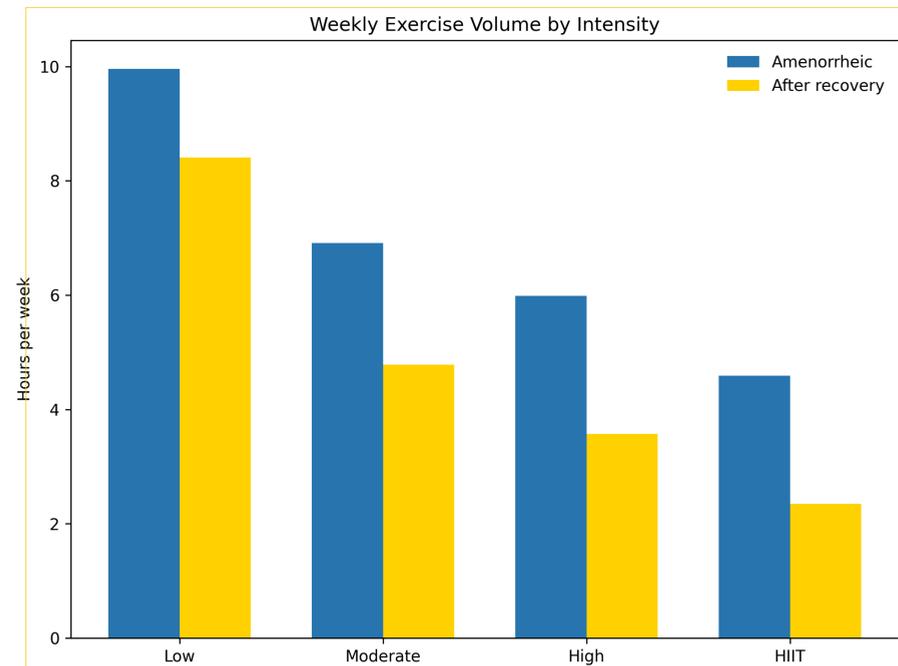


Figure 1. Weekly Exercise Volume by Intensity During Amenorrhea vs After Menstrual Recovery

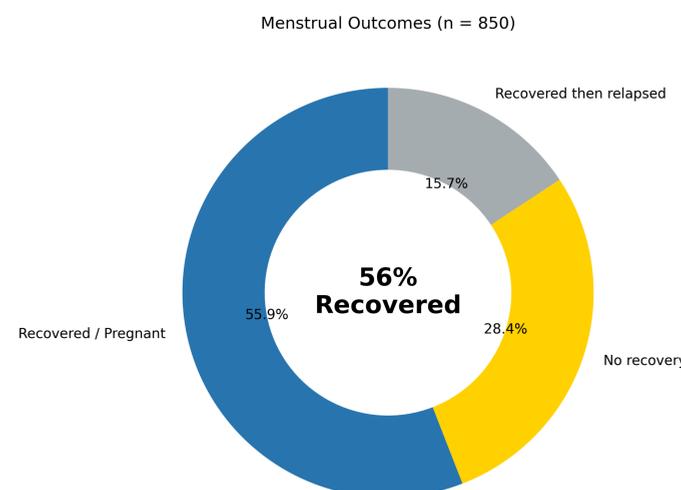


Figure 2. Menstrual Outcomes Among Survey Participants With Functional Hypothalamic Amenorrhea

Exercise-Related Medical Recommendations

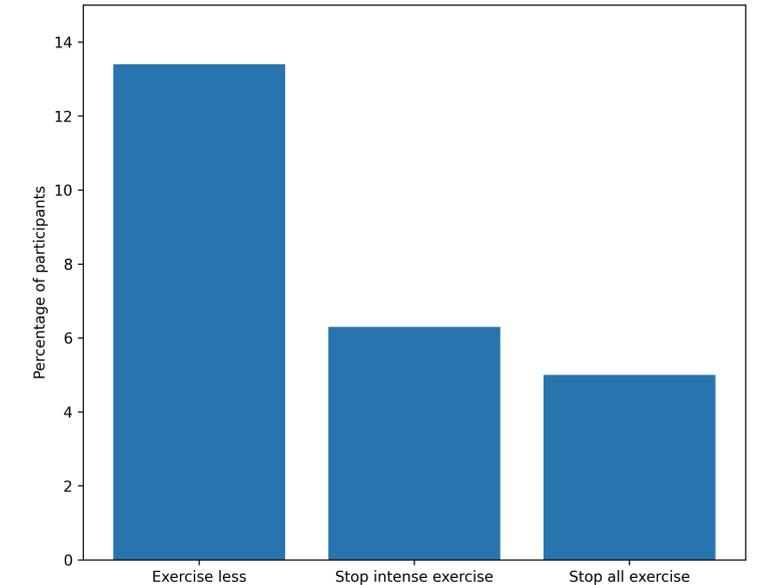


Figure 3. Exercise-Related Medical Recommendations Reported by Participants

Key Takeaways

- FHA commonly occurs in women who do **not** perform high-intensity or interval exercise
- Menstrual recovery is associated with **global reductions in exercise volume**, yet many do not sustain recovery
- Exercise counseling is infrequently reported**, highlighting a clinical care gap

Conclusions

This study represents the largest cohort investigation of FHA to date. More than half of women with FHA (54%) did not participate in high-intensity or interval training, spending most of their exercise time in low-intensity activities. These findings demonstrate that clinicians should consider FHA in amenorrheic patients that do not partake in activities classically associated with FHA such as long distance running or college or professional athletics. Findings highlight that subtle energy imbalances beyond classic athlete and anorexia profiles contribute to FHA, underscoring the need for providers to broaden their suspicion even in non-athletic women.