

Physical Activity Patterns, Barriers, and Motivators in Multiple Myeloma and Precursor Disease Patients: A Cross-Sectional Survey

BACKGROUND

While exercise improves physical and emotional outcomes in patients with multiple myeloma (MM), **little is known about actual activity levels and perceived barriers in this population and those with precursor conditions** such as smoldering MM (SMM) or monoclonal gammopathy of undetermined significance (MGUS). **Identifying these gaps is crucial for tailoring supportive interventions and improving patient-reported outcomes in MM care.**

METHODOLOGY

Patients were categorized according to the International Physical Activity Questionnaire (IPAQ) scoring protocol. This approach classifies individuals into three physical activity levels—low, moderate, and high—based on combinations of reported frequency, duration, and intensity of activity. Specifically, participants were classified as low if they did not meet the criteria for moderate or high activity.

Moderate activity was defined by meeting at least one of the following:
(i) Three or more days of vigorous activity lasting at least 20 minutes per day,
(ii) Five or more days of moderate-intensity activity or walking lasting at least 30 minutes per day, or
(iii) Five or more days of any combination of walking, moderate, or vigorous activity achieving at least 600 MET-minutes per week.

High activity was defined by either:
(i) vigorous-intensity activity on at least three days accumulating at least 1500 MET-minutes per week,
(ii) seven or more days of any combination of walking, moderate, or vigorous activity achieving at least 3000 MET-minutes per week.

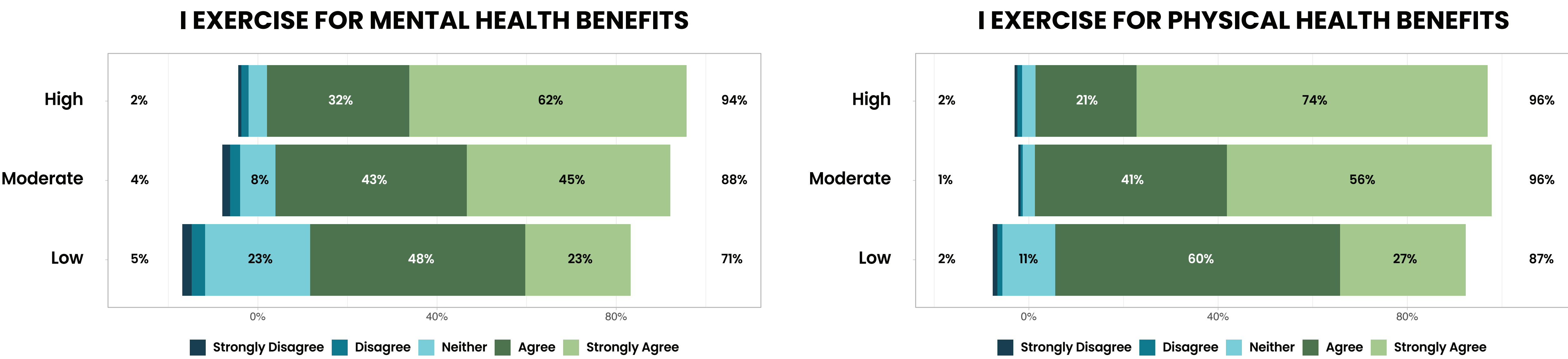
Barriers and motivators were assessed using 5-point Likert scales, and differences across activity groups were tested using chi-square or nonparametric comparisons.

ACKNOWLEDGEMENT

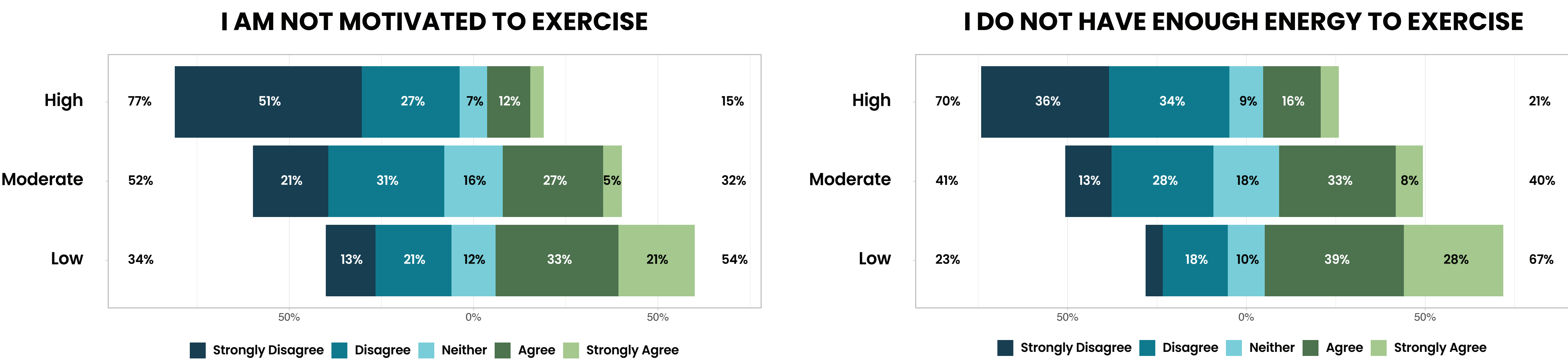
Our deepest gratitude to the patients and caregivers who share their data and experiences through HealthTree. Your contributions make this research possible.

RESULTS

MOTIVATORS TO EXERCISE



BARRIERS TO EXERCISE



CONCLUSION

This large cohort analysis reveals that most MM patients do not meet recommended physical activity levels, primarily due to fatigue and lack of motivation, whereas patients with precursor conditions reported higher activity and fewer limitations. Notably, low-active patients were far more likely to cite insufficient energy (70%) and lack of motivation (40%) as barriers, despite recognizing health benefits. In contrast, highly active patients overwhelmingly endorsed both physical and mental benefits (94–96%) and reported far fewer barriers. **These findings highlight the need for MM-specific supportive interventions—fatigue-adapted regimens, motivational counseling, and tailored programming—to help low-active patients translate intent into action, while supporting sustaining engagement among high-active individuals.** Our data support integrating physical activity promotion into MM care pathways and provide a foundation for future interventional studies.

