

Fatigue, sleep disturbance, and anxiety over the first year of breast cancer treatment

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INTRODUCTION

- Breast cancer is the leading cancer diagnosis in women worldwide¹ with up to 90% of women with breast cancer still **reporting** ongoing symptoms more than a year after diagnosis².
- Fatigue, sleep disturbance, and anxiety frequently co-occur in breast cancer patients, forming a cluster of symptoms that can significantly disrupt quality of life and hinder recovery³.

PURPOSE

To identify symptom patterns over the first year of breast cancer treatment.

METHODS

- This analysis used data from the Treatment-Induced Nausea and Vomiting (TINV) Study, a prospective, longitudinal study that followed women with early-stage breast cancer for one year **regarding symptom experience**.
- Participants completed the Patient-Reported Outcomes Measurement Information System (PROMIS®29) Questionnaire after hospital discharge, weekly during chemotherapy/radiation therapy, and monthly.
- Group-based trajectory modeling (GBTM) was used to identify distinct temporal patterns for fatigue, sleep disturbance, and anxiety during the first year of follow-up.

RESULTS

Participant Characteristics (n = 295)

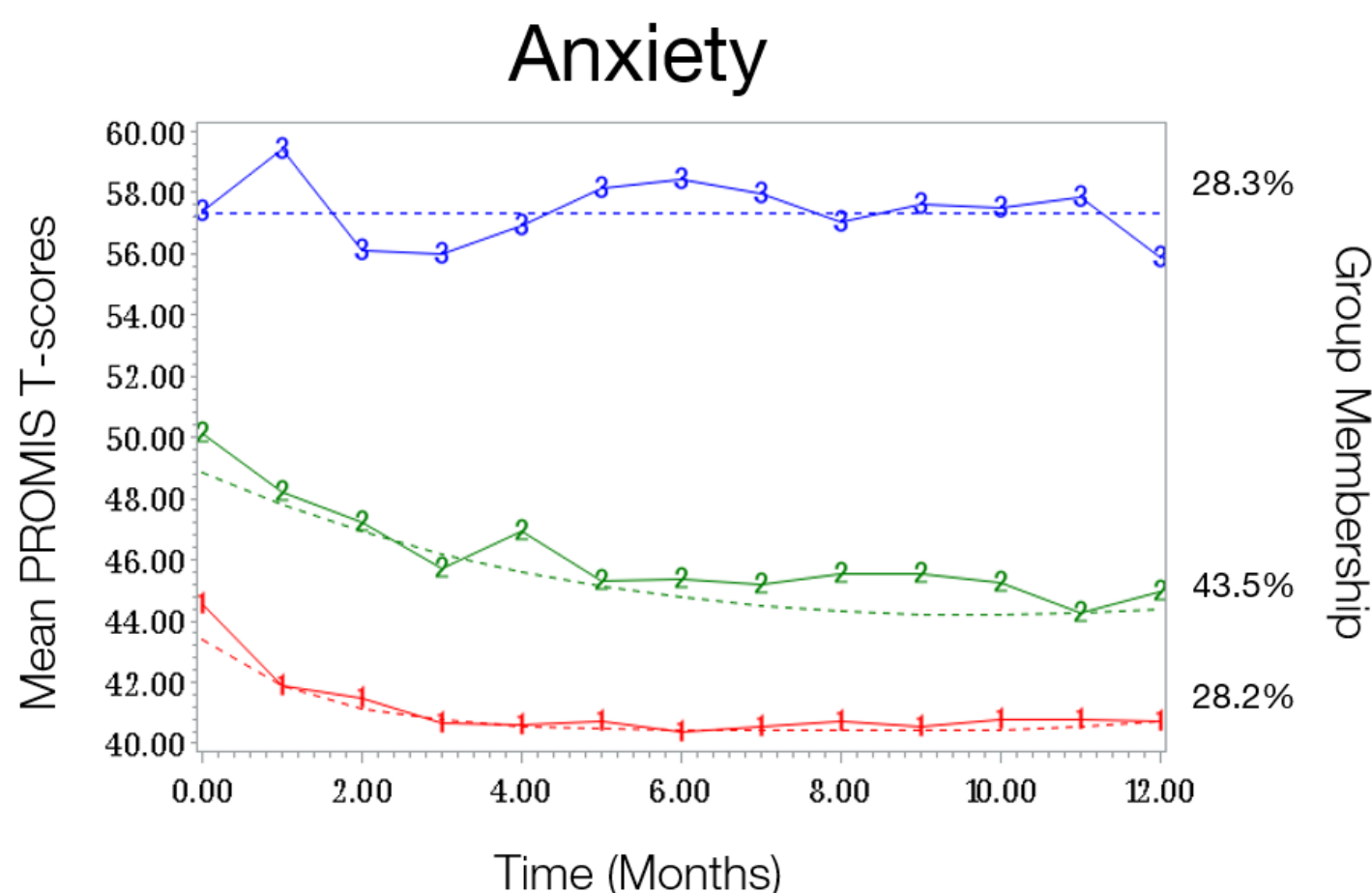
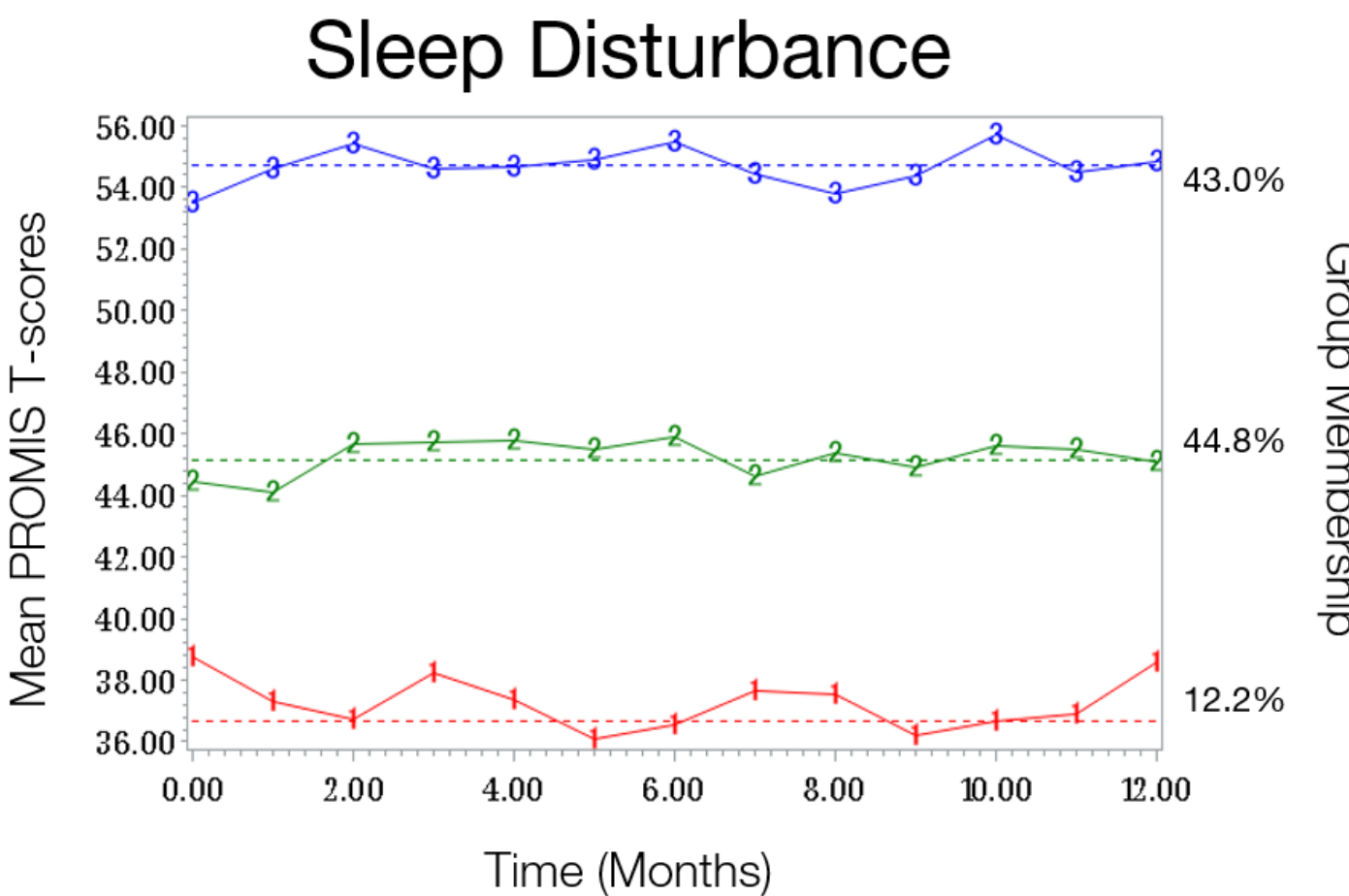
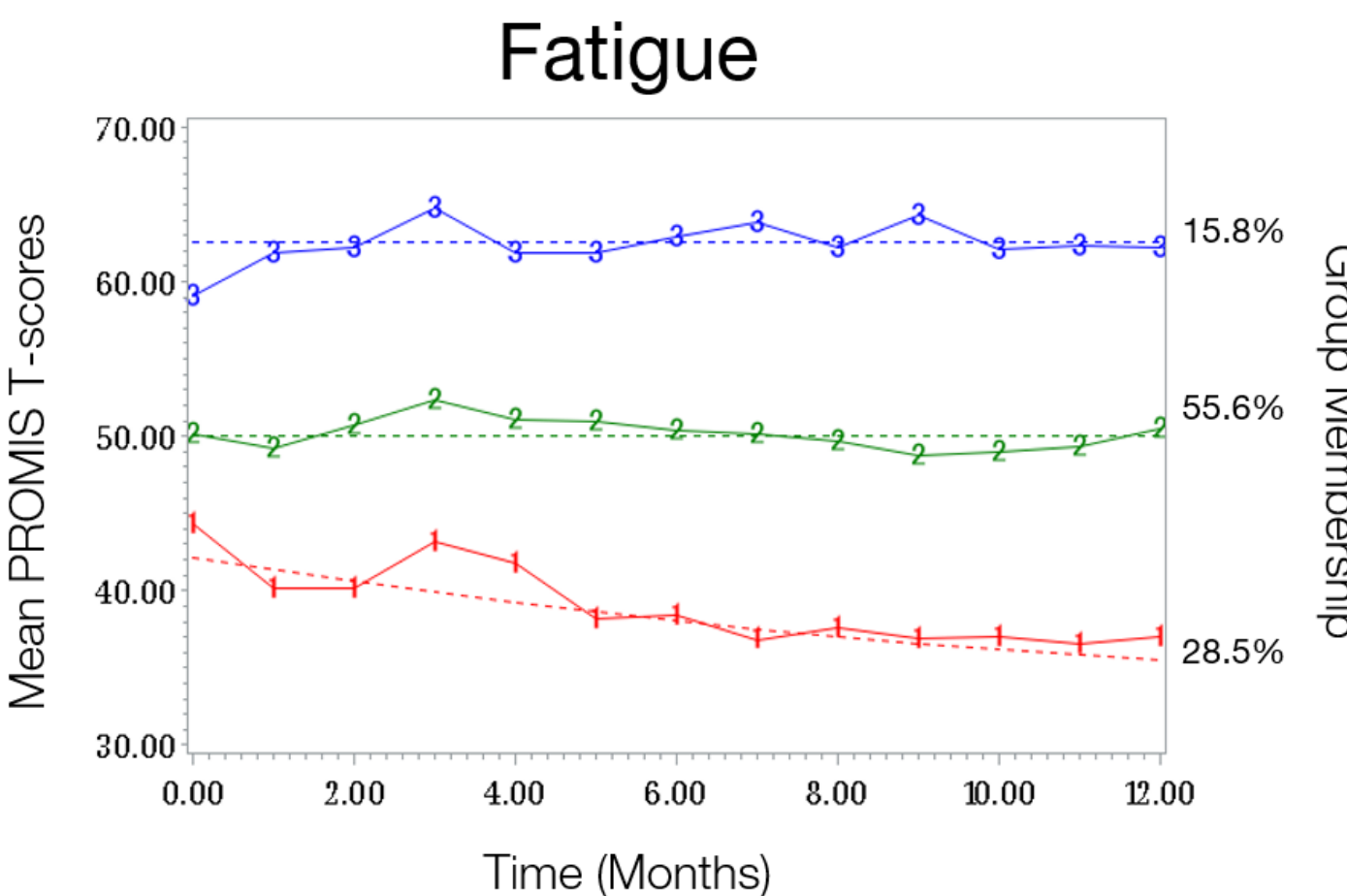
Age: Mean = 60.2 years (SD = 11.82)

Race: 87.7% White, 10.3% Black, 2.1% Asian

Treatment type: Surgery (100%), Chemotherapy (27.9%), Radiation (76.6%), Hormonal Therapy (59.5%), Immunotherapy (12.8%)

- Each symptom showed **three distinct trajectory groups**, with higher severity groups generally exhibiting **stable or less improvement** over time.

- Among 276 participants with complete data, 26.4% (n=73) were assigned to the same symptom group across fatigue, sleep, and anxiety (Group 1: 20.5%, Group 2: 46.6%, Group 3: 32.9%).
- The majority (62%, n=171) showed partial overlap, sharing two group assignments.



CONCLUSIONS

- Participants in this study maintained or decreased in symptom severity over the first year of treatment.
- Notably, those with higher symptom severity were less likely to experience symptom relief over time.
- Patients should be screened early and often, and if symptoms are reported, begin interventions earlier.

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