

Investigating the Relationship Between Exercise Urgency and Adherence Among Patients With Musculoskeletal Conditions: A Cross-Sectional Study

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Background: Adherence to therapeutic exercises is essential for effectively managing musculoskeletal conditions, yet the factors influencing adherence to therapeutic exercise routines remain insufficiently investigated. A variety of psychological phenomena suggest that the urgency, or how early exercises are completed in the day, can influence adherence. Understanding potential antecedents (i.e. chronotype; one's preference for morning or evening activity) and mediators (i.e. perceived mental effort and barriers) of urgency can explain adherence and help develop strategies to improve adherence to exercise programmes and patient outcomes.

Aim: This study investigates the relationships among chronotype, exercise urgency, mental effort, perceived barriers, and therapeutic exercise adherence among individuals with musculoskeletal conditions.

Methods: This cross-sectional study involved 250 individuals (mean age = 44.6 years, range = 18–85; 74.4% female, 24.8% male, 0.8% non-binary) diagnosed with musculoskeletal conditions (average duration of symptoms = 7.7 years), who were following a therapeutic exercise programme prescribed by healthcare professionals. Data collection involved administering the Exercise Adherence Rating Scale, the Subjective Ease of Exercise Questionnaire, and the Morningness–Eveningness Questionnaire. Participants' exercise urgency was assessed by measuring the interval between waking up and starting rehabilitation exercises. Data analyses were performed using structural equation modelling, employing Mplus software.

Results: The measurement model demonstrated acceptable fit with four latent factors (morningness–eveningness, mental effort, external barriers, and adherence; $\chi^2(269) \approx 545.21$, $p < .001$; RMSEA ≈ 0.06 ; CFI ≈ 0.92 ; SRMR ≈ 0.07). Structural equation modelling indicated that a tendency to be a 'morning person', as measured by Morningness–Eveningness Questionnaire scores, was associated with shorter intervals before starting rehabilitation exercises ($\beta = -0.22$, $p < .001$). Exercise urgency was associated with fewer perceived barriers to exercise ($\beta = 0.169$, $p = 0.009$), which served as the primary predictor of adherence ($\beta = -0.75$, $p < .001$). The relationship between mental effort and adherence was not statistically significant ($\beta = -0.017$, $p = 0.813$). The model explained 59.9% of the variance in adherence.

Conclusion: The results confirm that individuals who undertake rehabilitation exercises earlier in the day (higher relative urgency) face fewer perceived external barriers and achieve more substantial adherence outcomes.

