Evaluation of Psychometric Indices of the Persian Version of the Regulation of Motivation Scale (RMS) among Students

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Extended Abstract

Aim

Students employ various strategies to regulate their motivation. For instance, they may utilize self-reward or modify their environment to enhance or sustain motivation for a specific task (Wolters, 2003). Motivational regulation, representing students' active efforts to maintain or boost their motivation, constitutes a pivotal self-regulatory process (Kim, Brady, & Wolters, 2018). The increasing recognition of motivational regulation as a significant self-regulatory process underscores the necessity for robust assessments. However, the dearth of measurement tools available to evaluate motivational regulation, coupled with the limitations of existing measures, impedes their effectiveness in addressing certain research objectives (Wolters & Benzon, 2013). In a recent study, researchers developed a novel tool for assessing motivational regulation, providing a scale for students' motivational regulation in a concise self-report format (Kim et al., 2018). Given the pivotal role and significance of this construct in academic motivation research, and in light of the surveys conducted in this domain, there remains a lack of a suitable tool for measuring motivational regulation in Persian language. Consequently, the present study aimed to examine the psychometric properties of the Motivational Regulation Scale (MRS) in the Iranian student population.

Methodology

The research adopts an applied approach in terms of its objective and descriptive in terms of data collection and analysis, employing factor analysis to analyze the data. The statistical population comprised all students of Imam Javad University in Yazd enrolled in the academic year 2021-2022, totaling 1600 students. A sample size of 350 participants was selected for this study. Participants were recruited through voluntary participation, employing convenience sampling, with 330 individuals ultimately completing the questionnaires. The measurement instruments utilized in this research encompassed the Motivational Regulation Scale (Kim et al., 2018), the Achievement Goal Orientation Scale (AGOS) (Elliott & McGregor, 2001), and the Difficulties in Emotional Regulation Scale (DERS) (Gratz & Roemer, 2004).

Findings

The results of both exploratory and confirmatory factor analyses revealed that the Motivational Regulation Scale (MRS) comprises two primary components: "Willpower" and "motivational regulation," each with specific values exceeding one. Additionally, the confirmatory factor analysis indicated that the two-component model demonstrated a good fit (X2/df=1.66, NFI=0.94, CFI=0.97, GFI=0.94, AGFI=0.97, IFI=0.97, PCFI=0.59, PNFI=0.57, RMSEA=0.045, and PCLOSE=0.66).

Based on the correlation coefficients presented in Table 3, it was observed that the performance orientation/tendency variable exhibited a positive and significant relationship ($p<0.05$, $r=0.12$) with the total score of the Motivational Self-Regulation Scale and the motivational regulation subscale

(p<0.01, r=0.17). Similarly, the mastery/tendency orientation variables displayed a positive and significant relationship (p<0.05, r=0.15) with the total score of the Motivational Self-Regulation Scale and its subscale (p<0.05, r=0.15), affirming the convergent validity of the Motivational Self-Regulation Scale with tendency orientations in the studied sample. Moreover, the relationships between the total score of the Motivational Self-Regulation Scale and its subscales with divergent and uncorrelated variables, such as avoidance goal orientations and deficits in emotion regulation, were non-significant, indicating divergent validity.

As depicted in Table 4, Cronbach's alpha coefficients were computed, yielding a reliability coefficient of 0.83 for the total score of motivational regulation, 0.73 for the will component, and 0.78 for the motivational regulation component, affirming the reliability and acceptability of the Motivational Self-Regulation Scale.

Conclusion
The aim of the research is to investigate the psychometric properties of the Motivational Self-Regulation Scale in Iranian students. Based on the findings of this study, the questionnaire demonstrates appropriate validity and reliability for student use.

The results reveal that questions 5, 6, 9, 10, 11, and 12 in the first factor exhibit high factor loadings. These questions were included in the questionnaire to measure the "Willpower" component, aligned with the main scale and the concept of motivational regulation in the research. Additionally, questions 1, 2, 3, 4, 7, and 8 comprise the second factor, designed according to the research conceptual model for assessing "motivational self-regulation," consistent with the work of Kim et al. (2018).

The present study confirms the sufficiency of the Motivational Regulation Scale (RMS) for use within the student community, demonstrating validity and reliability. However, the research has certain limitations, notably the skewed gender composition of the sample, with 80% of participants being female students. Future research should strive for gender balance. Moreover, as the study exclusively focuses on students, caution is warranted when generalizing the findings to other age and educational groups. Hence, researchers are encouraged to explore the scale's validity and psychometric indicators within various educational cohorts, particularly students.

Keywords: Factor Analysis, Motivational Regulation Scale, Psychometric Indices, Students.

Conflict of Interest
There are no conflicts of interest associated with this research.

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