Contribution ID: **182** Type: **Poster**

Network Analysis of the Illness Management and Recovery Scale (IMR) in Individuals with Mental Disorders

Thursday 24 July 2025 17:10 (20 minutes)

Poster

Network Analysis of the Illness Management and Recovery Scale (IMR) in Individuals with Mental Disorders

Author

Martín-Ordiales, N.; Sesé, A., Martín Chaparro, M.P., Barrios, M.; Hidalgo, M.D.

Affiliation

University of Murcia; Balearic Islands University; University of Barcelona

Abstract

Understanding the complex relationships between key factors in mental health recovery is essential for improving clinical interventions. The Illness Management and Recovery Scale (IMR) is widely used to assess recovery-related processes, yet little is known about the underlying structure of its items when analyzed through network models. This study explores the interconnections between IMR items using network analysis, assesses the stability of the network structure, and examines measurement invariance between users of mental health services and healthcare professionals.

The IMR was completed by a sample of 172 users of mental health services diagnosed with a severe mental disorder and 167 healthcare professionals treating them. A network model was estimated using the Triangulated Maximally Filtered Graph (TMFG) model and the walktrap algorithm. To ensure robustness, bootstrap resampling was applied to assess the stability of edge weights and centrality indices. Additionally, an Exploratory Graph Analysis (EGA) was conducted to identify the most stable latent structure of the scale, followed by a configural and metric invariance analysis to compare factor structures between users and professionals.

Network analysis revealed 39 non-zero edges among the 15 IMR items, with coping strategies (IMR11) emerging as the most central node, closely linked to distress from symptoms (IMR6), functional difficulties (IMR7), and symptom recurrence (IMR9). Items related to social support (IMR3, IMR4, IMR5) and substance use (IMR14, IMR15) formed distinct but interconnected subgroups. The EGA model identified a predominant three-factor structure, with high stability in items related to symptom management, social and health behaviors, and personal recovery strategies.

Measurement invariance analysis indicated that 13 out of 15 items demonstrated configural and metric invariance, suggesting a largely consistent factor structure across user and professional responses. However, IMR9 (Symptom Recovery) exhibited higher factor loadings in users, implying a stronger association with their recovery perceptions compared to professionals.

These findings highlight the central role of coping strategies in mental health recovery and provide evidence for a stable three-factor structure of the IMR in a clinical population. The results support the use of network analysis to refine assessment tools and tailor interventions. Future research should further explore non-invariant items to enhance the interpretability of the IMR across different stakeholder groups.

Keywords

Network analysis, IMR scale, psychometrics

Primary authors: Ms MARTÍN-ORDIALES, Nuria (University of Murcia); Prof. SESÉ, Albert (Universitat de les Illes Balears); Dr MARTÍN CHAPARRO, María Pilar (University of Murcia); Prof. BARRIOS, Maite (University of Barcelona); Prof. HIDALGO, María Dolores (University of Murcia)

Presenters: Ms MARTÍN-ORDIALES, Nuria (University of Murcia); Prof. SESÉ, Albert (Universitat de les Illes Balears); Dr MARTÍN CHAPARRO, María Pilar (University of Murcia); Prof. BARRIOS, Maite (University of Barcelona); Prof. HIDALGO, María Dolores (University of Murcia)

Session Classification: Poster Session 4

Track Classification: Measurement: Measurement