

# The JD-R Model in Volunteering: A Longitudinal Approach to Estimation and Missing Data Treatment

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## Poster

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## Abstract

The Job Demands-Resources (JD-R) model is widely used in organizational psychology but remains largely unexplored in other contexts such as volunteering. Despite theorizing causal relationships that unfold over time, previous studies have primarily relied on cross-sectional data, failing to test these relationships with a longitudinal design, which poses significant methodological challenges. Additionally, the treatment of missing data can substantially influence parameter estimates, leading to divergent conclusions and limiting the model's replicability.

To address these issues, we present an empirical application of the JD-R model that explores the salutogenic effects of job characteristics on well-being using a longitudinal dataset of Spanish volunteers. This study evaluates key methodological decisions related to model estimation and missing data handling, comparing their impact on the interpretation of results. Specifically, we propose two plausible structural equation models (SEM) based on the theoretical framework and compare three missing data treatments: multiple imputation, maximum likelihood estimation, and Bayesian approaches.

Based on our results, we propose clear recommendations for applying the JD-R model in longitudinal research and discuss the limitations of different missing data treatments. These insights aim to enhance methodological rigor, improve reproducibility, and offer applied researchers a more reliable framework for studying organizational psychology processes over time.

## Keywords

Job Demands-Resources; Missing data; SEM

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