

Special Issue

Challenges in the Use of Structural Equation Modeling (SEM) for Longitudinal Data Analysis in Medicine

Message from the Guest Editor

The aim of this Special Issue is to explore the many challenges of employing structural equation modeling (SEM) methods in the analysis of repeated-measures data in medical research. SEM is a multivariate method that permits researchers to assess complex models using a mix of latent and observed variables. The proliferation of specialized software permits researchers to assess a variety of complicated research questions, sometimes by simply drawing pictures of relations without much comprehension of the complexities associated with the modeling. As such, researchers often apply SEM inappropriately, ignoring issues such as the selection of appropriate estimators, sample size, and model fit indexes. As such, we invite authors to submit manuscripts that address the many challenges of applying SEM to practical problems in medicine, with special emphasis on longitudinal data analysis. Appropriate questions include the estimation of sample size and power, the appropriate use of chi-square and other indexes of fit, dealing with non-normal data and post hoc model fitting.

Guest Editor

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Message from the Editor-in-Chief

The journal *Mathematics* publishes high-quality, refereed papers that treat both pure and applied mathematics. The journal highlights articles devoted to the mathematical treatment of questions arising in physics, chemistry, biology, statistics, finance, computer science, engineering and sociology, particularly those that stress analytical/algebraic aspects and novel problems and their solutions. One of the missions of the journal is to serve mathematicians and scientists through the prompt publication of significant advances in any branch of science and technology, and to provide a forum for the discussion of new scientific developments.

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