

PSYCHOMETRIC VALIDATION OF A QUESTIONNAIRE FOR ASSESSING PARANORMAL HEALTH BELIEFS AND STATISTICALLY MODELLING THE EFFECTS OF THE CONSTRUCT ON HEALTH OUTCOMES LONGITUDINALLY

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Background: Paranormal health beliefs (PHBs) denote the inclination to endorse illusory supernatural notions about well-being/treatment. Researchers in Italy developed the Paranormal Health Beliefs Scale (PHBS). However, the construct and PHBS properties have remained under researched.

Aims: To psychometrically validate the PHBS with an English-speaking sample. In addition, to develop and test a model assessing how PHBs relate to health-related outcomes over time.

Methods: This project comprised four published studies. Study 1 ($N = 14$) used cognitive interviewing to evaluate PHBS comprehension and item applicability. Study 2 ($N = 850$) assessed the modified PHBS using exploratory factor (EFA) and Rasch analysis. Study 3 ($N = 2,138$) extended latent structure analysis by employing exploratory structural equation modelling (ESEM) and multidimensional Rasch analysis. Study 4 ($N = 1,507$) utilised structural equation modelling (SEM) to examine the influence of illusory health beliefs on health behaviours/outcomes over time. Outcomes included adherence to recommended health behaviours (e.g., lifestyle, diet, vaccines), trust in healthcare professionals, and use of complementary and alternative medicine (CAM).

Results: Issues with culturally particular content and phraseology of the PHBS existed. Hence, a modified PHBS was produced (renamed the Illusory Health Beliefs Scale, IHBS). EFA revealed six underpinning dimensions: Religious Belief, Superstition, Precognitive Belief, Health Myths, Skepticism, and Health Pseudoscience. These dimensions were verified in ESEM. Rasch analyses demonstrated good item/person fit and item/person reliability for the IHBS, and multidimensional Rasch established that the dimensions were empirically related. SEM revealed that illusory health beliefs aligned with distrust of conventional medicine and the pursuit of unvalidated therapies.

Conclusions: The project established a more effective paranormal health beliefs measure for English-speaking samples. Additionally, the project established that the relationship between illusory health beliefs and health outcomes is complex and multifaceted. Specifically, illusory health beliefs reflect illusory and perceived control, manifesting as low ability to influence health. These likely predict use of CAM as an attempt to initiate control and involvement with health management. Hence, this reflects the need to promote critical thinking and feelings of control in relation to health.

Keywords: Cognitive interviewing, Illusory thinking, Paranormal health beliefs, Paranormal Health Beliefs Scale, Questionnaire scrutiny

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