Health Means Different across Cultures: A Multilevel Model Analyzing Health Status, Social Capital, Life Satisfaction and Happiness Using World Values Survey

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Introduction

• Health is a culture-bound construct.
  - Different attitudes toward mental illness across cultures (Marsella & White, 1982),
  - Physical health and mental health can be weighed differently.
  - Cultural conceptions also have a great influence on the social and psychological processes of health communication (Kar, Alcalay, & Alex, 2001).
  - The different understandings of health status, especially mental health could influence individual’s self-report response to international survey.

• Objectives
  - To identify cultural influences on individual’s self-report health status (SRHS)
  - To shed light on international public health research

Methods

• Analysis based on the 6th wave cross-national World Values Survey taken in 2010-12.
  - 15 countries with absence of Hofstede’s cultural dimension indices were excluded.
  - Overall, 37 units at the country level with 54,913 participants were examined.

• Individual level measures
  - Outcome variable: overall health status
  - Predicting variables (i.e., individual’s mental health status): social capital, life satisfaction, and happiness

• Country level measures: continuous indices of Hofstede’s (2001) cultural dimensions
• Demographic (control) variables: age, gender, employment status, marital status, and income
• Models were built in terms of increasing complexity to test the effects of cultural dimensions.
- Model 1, the null model, does not include any predictor in its fixed part;
- Model 2 builds on Model 1 by including mental health and all control variables in fixed part, and assesses the effect of individual predictors alone on self-rated health status.
- Model 3 extends Model 2, incorporating cultural variables by adding country-aggregated cultural dimensions as predictors at the second level.

Results

* Significant cross-level interactions were found after controlling for demographic differences
  - Social capital’s influence on SRHS negatively predicted by uncertainty avoidance ($p < .05$)
  - Life-satisfaction’s influence on SRHS positively predicted by individualism-collectivism ($p < .001$) and negatively by masculinity-femininity ($p < .05$)
  - Perceived happiness’s influence on SRHS negatively predicted by individualism-collectivism ($p < .05$) and positively by masculinity-femininity ($p < .05$)

* Using full maximum likelihood estimation, model comparison showed that the country-level cultural predictors significantly explained the model deviance ($\Delta \chi^2 = 32.24, df = 5, p < .001$).

Significance

* Results demonstrate the cultural differences in understanding health status
* Provide guidance to researchers using worldwide questionnaires to take into account cultural differences in analyzing health-related data

Discussion Questions

* Should researchers take cultural influences into consideration when analyzing international data? If so, in what cases and what are the best strategies for analyses?
* Besides cultural variables, what other factors should be considered in analyzing self-report international data to have a less biased results?

References

