Health Means Different across Cultures: A Multilevel Model Analyzing Health Status,

Social Capital, Life Satisfaction and Happiness Using World Values Survey

Authors:

Qinghua (Candy) Yang – qyang@asc.upenn.edu

University of Pennsylvania (USA) - Postdoctoral Research Fellow in Health Communication

Jiangmeng (Helen) Liu – j.liu22@umiami.edu

University of Miami (USA) – Doctoral Student in Strategic Communication

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[2].

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

Hofstede, G. H. (2001). *Culture's consequences: Comparing values, behaviors, institutions and organizations across nations*. London, UK: Sage Publications.

Kar, S. B., Alcalay, R., & Alex, S. (2001). *Health communication: A multicultural perspective*. Thousand Oaks, CA: Sage Publications.

Marsella, A. J., & White, G. M. (1982). *Cultural conceptions of mental health and therapy*. Boston, MA: D. Reidel.