



Reliability and construct validity of the World Health Organization Quality of Life (WHOQOL-BREF) among English-speaking, American college students

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Presenter Disclosures

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No relationships to disclose

Purpose

- The purpose of this study was to assess the reliability and construct validity of the World Health Organization Quality of Life (WHOQOL-BREF) among English-speaking, American college students.

QOL

- **Quality of life (QOL)** is a term used to describe an individual's physical and mental well-being.
- The World Health Organization (WHO) developed a multi-dimensional instrument to assess QOL that can be used across cultures. Initiated in 1991, the WHOQOL project was a collaborative effort to create a measure of cross-cultural QOL.

Method

- Institutional Review Board approval obtained
- Students enrolled in *Physical Activity & Wellness* (PED 101) were invited to participate in this study during the Fall 2009 and Spring 2010 semesters.
- An email was sent to all students containing a link to access a secure website for completion of the online survey.
- Clicking the link indicated consent to participate.
- An alternative assignment was offered for those students who chose not to participate.
- The survey was available for two weeks, and two email reminders were sent prior to survey closure.

Instrument

- WHOQOL-BREF- 26-item self-administered instrument was created to measure four quality of life domains: Physical, Psychological, Social, and Environmental.
- Five-point Likert response scale representing the following options: 1- Not at all, 2- A little, 3- A moderate amount, 4- Very much and 5-An extreme amount.

Participants

- 2,496 undergraduate students participated:
 - Fall 2009 (1421 students)
 - Spring 2010 (1075 students)

Data Analysis

- Using PAWS 17.0 (formerly SPSS), descriptive statistics were computed to summarize demographic data elicited from participants.
- Factor analyses were conducted using PASW 17.0 and AMOS 17.0. As suggested by Bollen [10], model fit was assessed using chi-square (χ^2), χ^2/df , Goodness of Fit Indices (GFI), Root Mean Square Error of Approximation (RMSEA), Tucker-Lewis Index (TLI), and Comparative Fit Index (CFI).
- The criteria used to determine a good model fit were a non significant χ^2 , $\chi^2/df < 2.0$, TLI and CFI $\geq .95$, and RMSEA $< .06$ [11]. Additionally, internal consistency of subscales was assessed using Cronbach's Alpha reliability coefficient

Results- Descriptive

- Most participants were 19 or 20 years old ($M = 19.74$, $SD = 3.02$).
- Predominantly female and the most commonly reported race was white or Caucasian.
- The majority of the sample self-identified as full-time students and most were in their first or second year.
- Most students reported living in an off-campus house or apartment or in a college dormitory or residence hall.

Confirmatory Factor Analysis

- CFA was conducted to assess the *goodness-of-fit* of this data with the four-factor model as prescribed by the WHOQOL-BREF.
- A statistically significant χ^2 value (1425.054; $p < .001$), suggested a bad fit. Additionally, sample size resilient goodness-of-fit indices were calculated, $\chi^2/df = 5.793$, GFI = .879, RMSEA = .072, TLI = .807, CFI = .828, which also suggested a bad fit.

Exploratory Factor Analysis

- Initially, an examination of the screen plot indicated that five factors were present. A statistically significant χ^2 value (817.665; $p < .001$) suggested a bad fit.
- Sample size resilient goodness-of-fit indices were calculated, $\chi^2/df = 4.568$, GFI = .915, RMSEA = .065, TLI = .872, CFI = .891, which also suggested a bad fit.

Discussion

- In this study, the WHOQOL-BREF had inadequate construct validity for this English-speaking, American College Student population as indicated through confirmatory factor analysis.

Discussion Cont.

- Results of descriptive statistical analyses indicated the participants in this study were primarily 19-20 years of age, Caucasian, and female, which is representative of the average American college population as indicated in *Profile of Today's College Student*
- Findings indicate that the WHOQOL-BREF may be sensitive to cultural or national characteristics.

Conclusion

- The WHOQOL-BREF has not been shown to be an adequate measure of QOL in this population.
- Until further research is conducted, the WHOQOL-BREF is not recommended for assessment of QOL in English-speaking, American college student populations.