

Examining the Cross-Cultural Equivalence of Work-Family Interface Measures

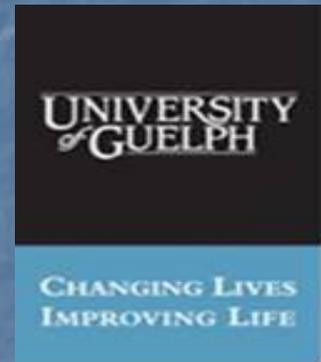


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Introduction

Purpose:

to examine the measurement equivalence/
invariance (ME/I) for culture of work-
family (W-F) scales using data from
Project 3535

W-F conflict

W-F positive spillover

W-F guilt

Why Is ME/I Important?

- ME/I assures those from different cultures ascribe same meaning & use same conceptual framework when responding to measures (Milfont & Fischer, 2010)
- Pre-requisite to cross-national comparisons (Milfont & Fischer, 2010; Oreg et al., 2008)
- Few cross-cultural studies on W-F have done ME/I analyses

Method: Participants

- 2,830 married/cohabiting employed parents
- 10 countries: Australia, Canada, China, India, Indonesia, Israel, Spain, Taiwan, Turkey & US
- 45% men
- 40% managers

Method: Procedure

- Survey containing target measures, among others, constructed in English
- Translated into language of each country & back-translated into English (van de Vijver & Leung, 1997)
- Standardized sampling framework designed to recruit large, heterogeneous sample with representation by both men & women and managers & nonmanagers
- Pilot tested in every country except China.

Method: Measures

- **W-F conflict** (Carlson, Kacmar, & Williams, 2000)
 - time- & strain- based work interference with family (WIF); 3 items
 - time- & strain- based family interference with work (FIW); 3 items
- **W-F positive spillover** (Grzywacz & Marks, 2000)
 - work to family; 4 items
 - family to work; 4 items
- **W-F guilt** (Korabik, McElwain & Lero, 2009; McElwain, 2008)
 - WIF; 4 items
 - FIW; 3 items

Procedure for ME/I

- ME/I established through multi-group SEM whereby increasingly stringent forms of nested constraints imposed on measurement model (Steenkamp & Baumgartner, 1998)
- Assessed the most common forms of ME/I (Vandenberg & Lance, 2000)
 - configural- same factor structure: same number of factors & same items associated with each factor
 - metric (or weak)- magnitude of factor loadings (or weights) is equivalent

- Models must have good fit
- χ^2 often significant with large samples as in cross-cultural research
- Fit of subsequent models must not be significantly worse than that of preceding model
- Traditionally assessed by $\Delta\chi^2$ between the two nested models, but dependent on sample size in same way that χ^2 is (Kelloway, 1995)
- ΔCFI used as alternative; value of $\leq .01$ indicates invariance exists (Oreg et al., 2008)

Configural ME/I

Measure	χ^2 (df)	CFI	RMSEA
WIF conflict	335.8 (80)	.96	.03
FIW conflict	296.3 (80)	.97	.03
Positive Spillover	142.8 (70)	.98	.02
W-F guilt	474.3 (130)	.96	.03

- All measures had good fit at configural level
- Demonstrates participants from different countries conceptualize constructs in the same way (Milfont & Fischer, 2010)

Metric (weak) Model Testing

- Modification indices showed fit of metric model for WIF conflict could be improved by correlating error terms for some items.
- Done only for those items that were conceptually related & involved redundancy in content.
- Modifications that resulted in significant improvement in model fit based on Satorra-Bentler scaled chi-square difference test were retained.

Metric (Weak) ME/I

Measure	χ^2 (df)	CFI	RMSEA	Δ CFI
WIF conflict	424.8 (116)	.96	.03	.007
FIW conflict	414.3 (116)	.96	.03	.01
Positive Spillover	211.6 (106)	.97	.02	.01
W-F guilt	623.1 (175)	.95	.03	.01

- Metric level ME/I established for all measures
- Means that participants from different countries are responding to the items **similarly** (Milfont & Fischer, 2010)

Discussion

- Past cross-national W-F research has rarely included ME/I analyses
- This study is unique doing so with
 - wide range of countries from different parts of the globe
 - large, diverse sample of both men & women and managers & nonmanagers
 - three measures assessing different aspects of the W-F interface

- Evidence for configural & metric ME/I was found for each of the three measures.
- Means data from all 10 countries can be compared when doing SEM analyses
(Steenkamp & Baumgartner, 1998)
- Preliminary findings from Project 3535 indicate variation among countries in the strength of the relationships between WIF & FIW conflict and both antecedent and outcome variables

- ME/I enhances interpretability of these findings by demonstrating that any similarities or differences among countries are valid & can be meaningfully explained (Milfont & Fischer, 2010)
- Attention must be paid to assuring that sound methodological practices, including establishing the ME/I of measures, have been followed in cross-cultural W-F research.
- Otherwise, findings & interpretations may be suspect because the conceptual frameworks/ meanings of individuals from different countries may not be the same.

- The results of this indicate that those in different cultures viewed the W-F interface similarly
- Still, researchers conducting cross-national W-F research need to verify that this is the case for their own samples.

Thank You!

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Or see our website at:
www.workfamilyconflict.ca

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