THE UNIVERSITY OF RHODE ISLAND
CANCER PREVENTION RESEARCH CENTER

Development of a Decisional Balance Scale for Blood Donation Among African Americans

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THINK BIG WE DO℠

Introduction

- The supply of blood and blood products in the US does not regularly keep pace with increasing demand
- There is specific need for blood among African Americans due to Sickle Cell Disease prevalence
- African Americans are underrepresented in the donor pool
- Need interventions to increase overall # of blood donors as well as culturally tailored interventions

Introduction

- There are a # of cognitive, affective, and psychological factors impacting the decision to donate blood
- There are very few theoretical studies in the field to guide effective assessment and intervention
- Virtually no theory driven research specifically targeting African Americans & blood donation
- Most interventions have been largely unsuccessful
  - Interventions to increase donation rates require valid and reliable measures to guide development

Aims of the Present Study

- Apply the Transtheoretical Model of Behavior Change (TTM) to blood donation behavior
- Develop measures for TTM constructs
  - Stage of Change (readiness to donate blood)
  - Decisional Balance (weighing of pros and cons of donating)
- Culturally tailor TTM measures to an African American population
- Compare psychometric structure and function of measures for blood donation with other successful TTM applications

Measurement Sample Characteristics

- 315 African Americans - range of donation experience (82.2% with hx of blood donation)
- Mean Age: 40.89 years (SD = 15.5); 60.4% female
- Education:
  - 33.3% high school or less,
  - 30% some college/associate's degree,
  - 36.7% college degree or higher
- Staging Distribution:
  - 32% Precontemplation
  - 28.4% Contemplation
  - 30% Preparation
  - 9.6% Action/Maintenance

Method

- Sequential approach to measurement development
  - Qualitative phase followed by quantitative analysis
  - Split-half procedure for survey sample
- Exploratory Factor Analysis conducted using PCA (N = 152)
- Confirmatory Factor Analysis conducted using structural equation modeling in EQS (N = 163)
- External Validation: Compare relationship between dcbl and stage to other TTM applications

Exploratory Results: Decisional Balance

Pros of Blood Donation	Factor Loading
I will be helping to prevent blood shortages	.781
I may save someone's life	.764
It is an easy way to help someone else	.733
Donating blood is the right thing to do	.732
I will set a positive example for others	.717
I may be helping somebody in my community	.629

Coefficient Alpha = .82

Exploratory Results: Decisional Balance

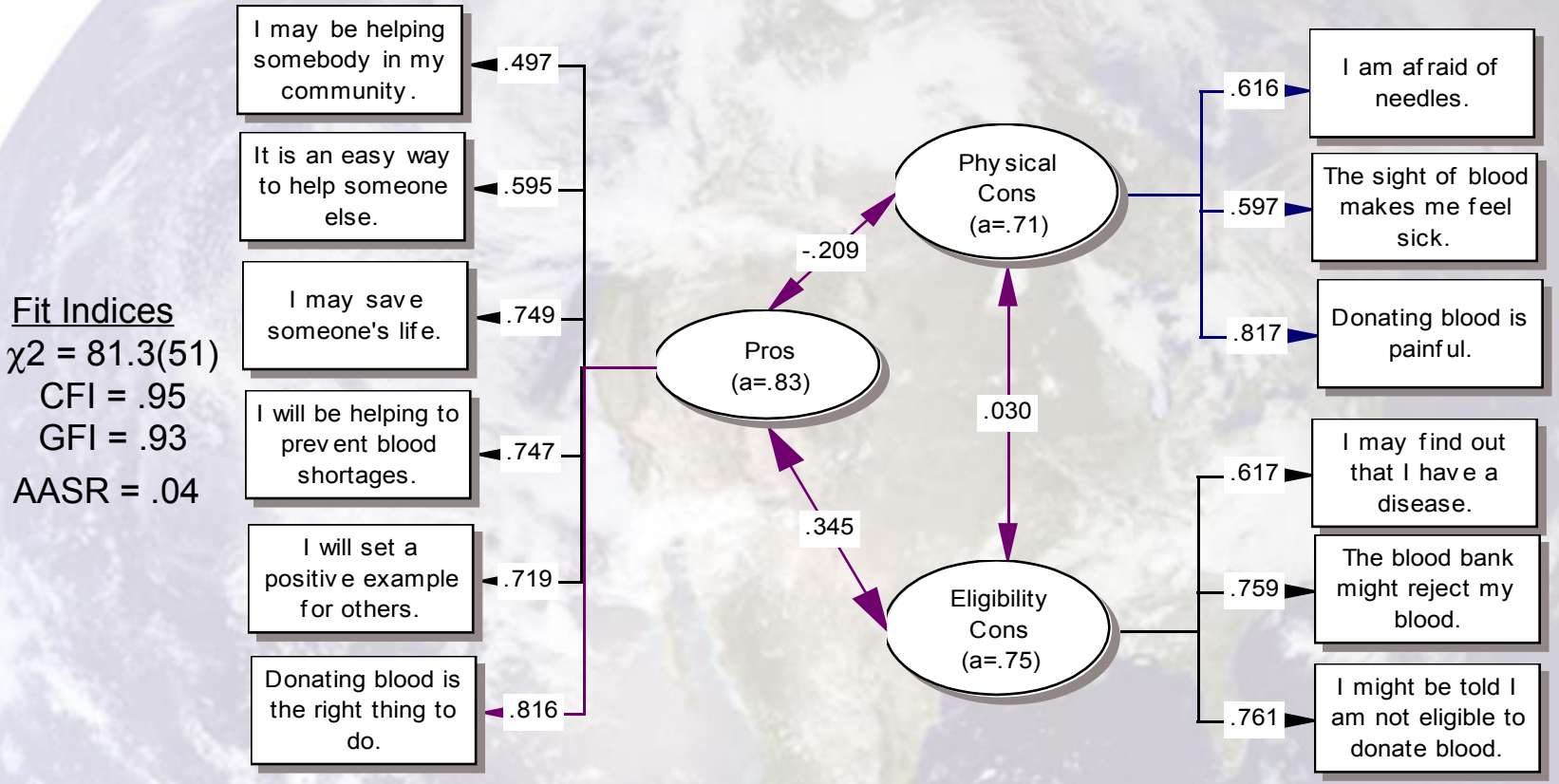
Physical Cons of Blood Donation	Factor Loading
Donating blood is painful	.841
I am afraid of needles	.781
The sight of blood makes me feel sick	.765

Coefficient Alpha = .72

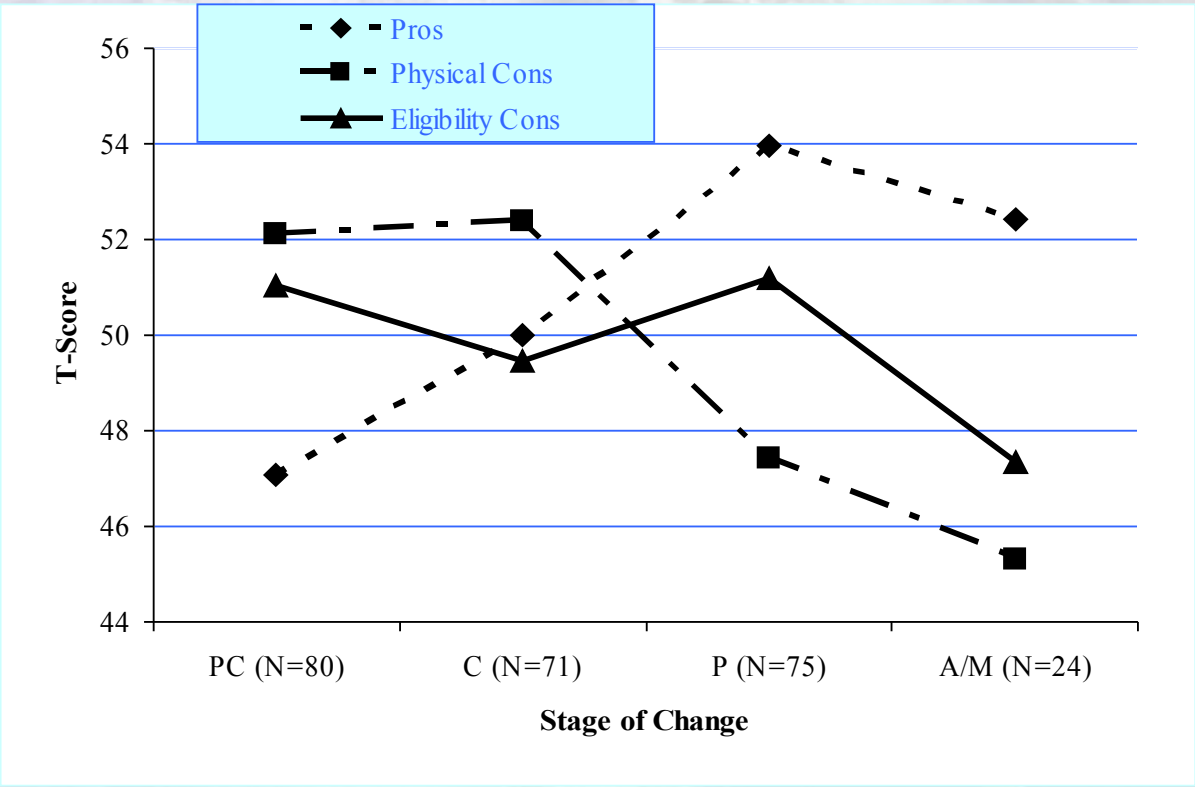
Eligibility Cons of Blood Donation	Factor Loading
I might be told I am not eligible to donate blood	.816
The blood bank might reject my blood	.790
I may find out that I have a disease	.752

Coefficient Alpha = .74

Confirmatory Decisional Balance Model



Pros and Cons of Donating Blood Across Stage of Change



*Pros & Physical Cons are significantly different, Eligibility Cons Scale n.s.

Discussion

- Development of a reliable & valid scale for Decisional Balance
  - 3 factor vs. common 2 factor scale
- Results suggest TTM constructs of stage and decisional balance are applicable to blood donation behavior
- Overall patterns across stage suggest TTM is a good fit
  - structure is not identical (e.g. pros & physical cons are significant, eligibility cons n.s.)

Discussion

- Eligibility cons may be less important intervention focus
- Cultural Tailoring: focus groups items vs. items retained based on quantitative results
- Implications for development of effective, theoretically-driven, individually-tailored interventions to increase blood donation

Limitations

- Lower percentage of participants in Action/Maintenance Stage
- Cross-sectional data: Need longitudinal data to examine validity of constructs in relation to actual future blood donation behavior
- High percentage of “unstageable” participants: Sampling Problem