Measuring Correlates of HIV Risk Avoidance in Sub-Saharan Preadolescents

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Overview

- Acquired Immune Deficiency Syndrome (AIDS) is a major health threat to sub-Saharan African youth
- Developing appropriate instruments to accurately measure protective behaviors is a necessity

Background: Sub-Saharan Africa

- The region has 10% of the world's population but more than 60% of the worlds infected people
- Despite numerous efforts, less than 20% of those in need have access to antiviral
- Primary prevention remains is essential
- Little is known about the use of risk avoidance behaviors among preadolescents

Background: Cameroon

- Cameroons is one of the countries in the region
- In Cameroon
  - 1 in 4 adolescents estimated at risk
  - Early initiation of sexual activity
  - Girls at higher risk
- Focus on youth identified as a priority by national health officials

Importance Appropriate Measures

- Accurately describe the use of risk avoidance behaviors
- Assist in appropriately identifying populations at risk
- Assure adequate assessment of interventions and programs

Preliminary Evaluation

- School based, completed in 2004
- 60 Cameroonian females
- Evaluated sexual abstinence behavior skills (SABSS) and Intentions to postpone sexual activity (IPSAS)
- Adequate internal consistency (SABSS, 0.67) IPSAS, 0.92) and Exploratory factor analysis (SABSS 2 factors, IPSAS 1factor)
- Measures renamed SABSS-CAM and IPSAS-CAM

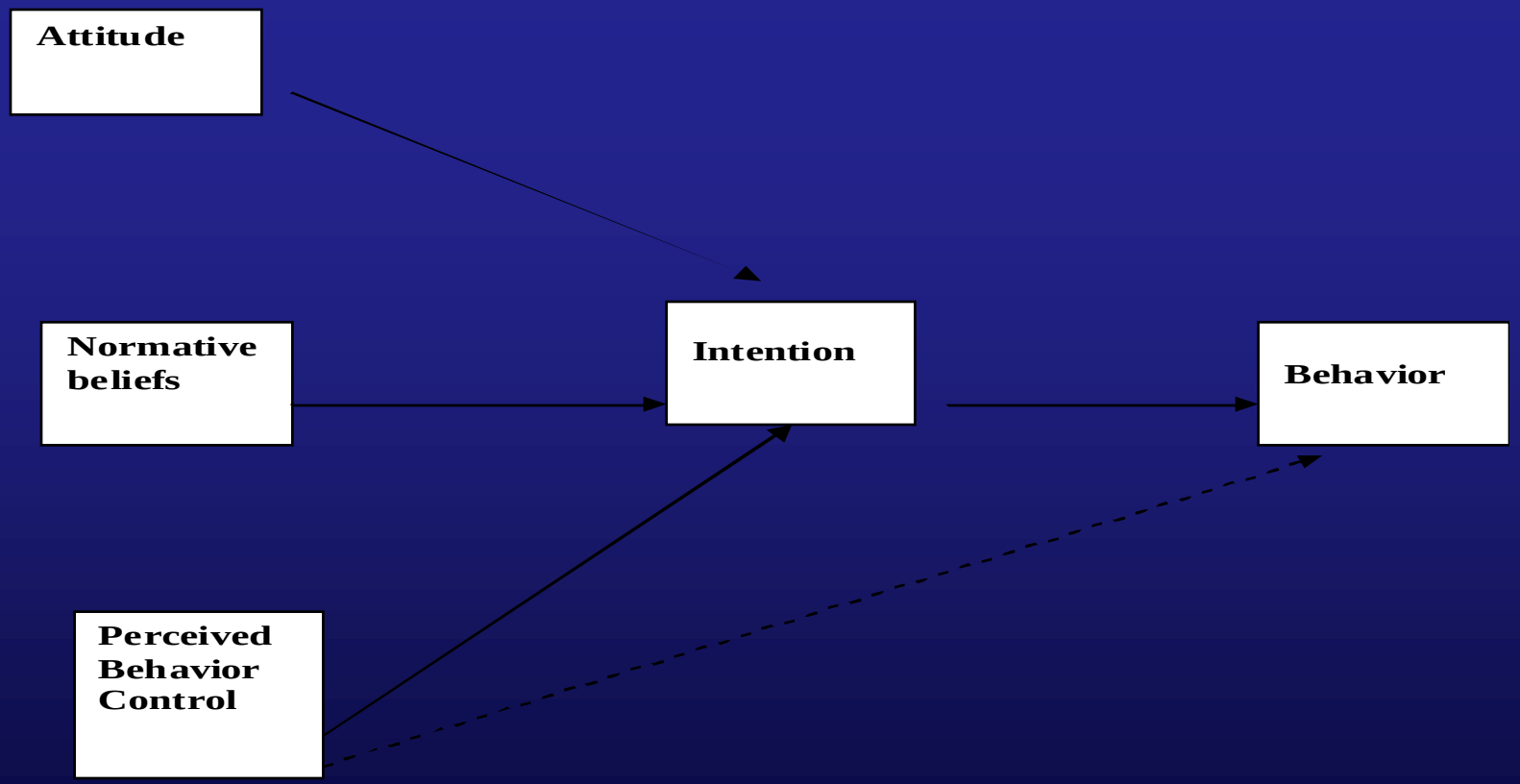
Purpose of this study

Second step in assessing reliability and validity with a larger and more heterogonous population

Method

- School based self-administered survey to 462 students in 8 randomly selected schools across two Cameroonian provinces
- Scales based on the Theory of Planned Behavior (Ajzen, 1981)
  - SABSS-CAM,
  - IPSAS-CAM,
  - Perceived negative consequence of early sex scale (PNCES)
  - Sexual abstinence behavior scale (SABS)

Theory of Planned Behavior



Measures

- **Sexual Abstinence Behavior Skills Scale (SABSS-CAM): Modified from vignettes in a 1994 WHO curriculum, 5 items**

- **Intentions to Postpone Sexual Activity scale (IPSAS-CAM): A modified version of the adolescent Sexual Intentions Scale (Urdry & Billy 1987), 3 items**

Measures

- Sexual Abstinence Behavior Scale (SABS): Modified version of Norris, Magnus and Clark's (2003) Abstinence Behavior Scale (5 items)

- Perceived Negative Consequence of Early Sex Scale (PNCESS): Single item scale adapted from Norris, Magnus & Clark, 2003

- Marlow-Crowne Social Desirability Scale (8 item short form)

- Demograpahics

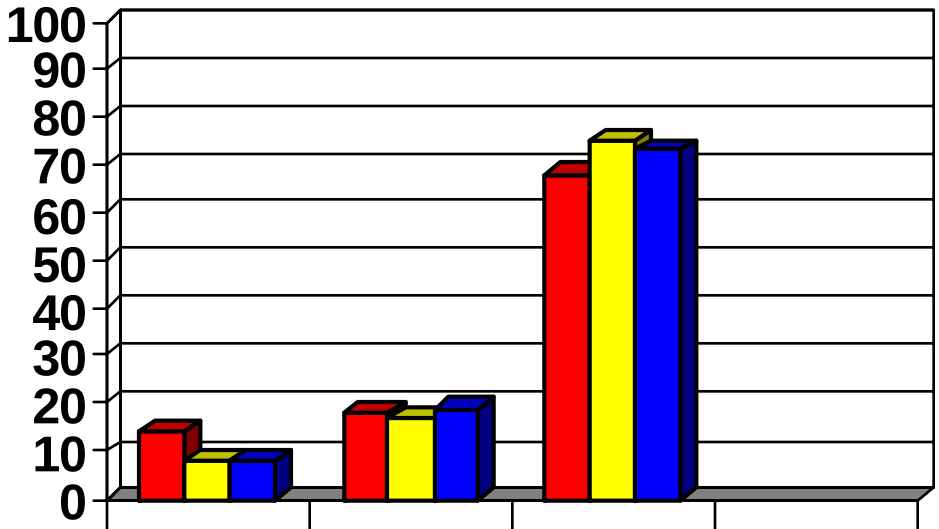
Method: Analysis

- Initial evaluation of the SABS and the PNCES among Cameroonian students.
- Univariate distributions and relationships examined
- Preliminary analyses
  - Demographics
  - Psychometric evaluation of all instruments
    - Internal consistencies
    - Convergence validity
    - Path model

Demographics

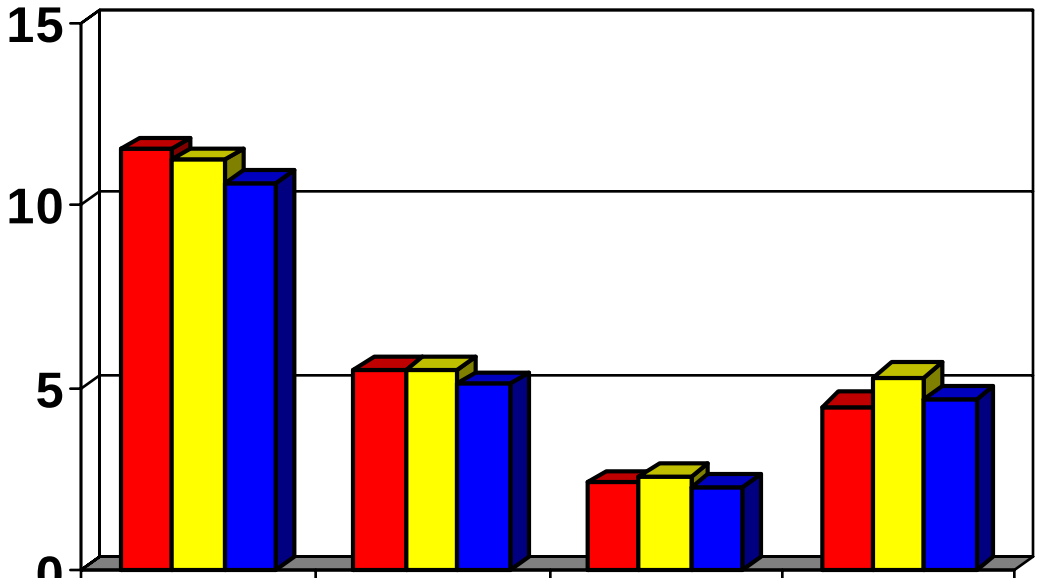
- 462 students, more female (61%), more from South West Province (54%)
- 66% from households with incomes less than 100,000frs CFA ($200) per month
- 51% had said no to sex at least once in past 3 months
- 27.3% sexually active
- No significant differences between participants from different provinces or age groups

Demographics: Sexual Activity by Age



	sex >1	Sex once	Never	
10	14	18	68	
11	8	17	75	
12	8	19	73	

Results: Means Scores by Age



	SABSS	IPSAS	PNCES	SABS
10	11.5	5.5	2.4	4.5
11	11.2	5.5	2.6	5.3
12	10.6	5.1	2.3	4.7

Psychometrics

- SABSS-CAM: 0.54
- IPSAS-CAM: 0.71
- SABS: 0.66

Psychometrics

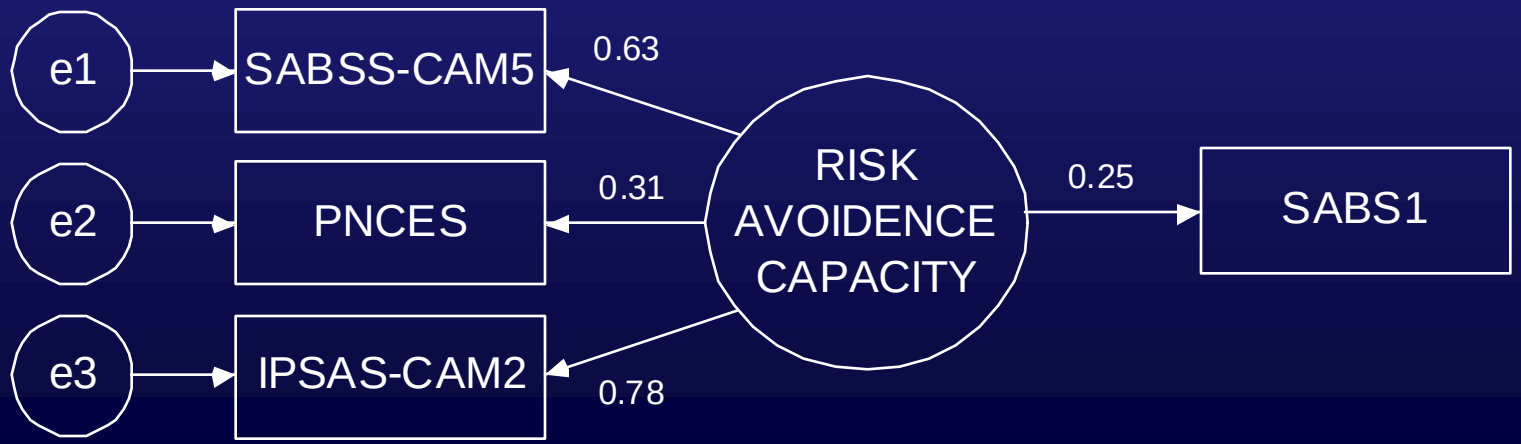
- Convergence Validity
  - Intentions and behaviors skills(0.44, alpha<.01)
  - Perceived consequence and behavior(0.10, alpha<.05)
  - Perceived negative consequence and intentions(0.26, alpha <.01)
  - Intentions and abstinence behavior (0.08, alpha<.05)
  - Behavior skills and abstinence behavior (not significant)

Psychometric analysis

- Redundancy of items within each scale
- We decided to test a path model
  - Do risk avoidance intentions, perceived negative consequence of sex, and abstinence skills predicts risk avoidance behavior

Path model

- Good model fit:
  - χ^2=1.330, df=2, p=0.51
  - CFI=1.00
  - RMSEA = 0.00



Implications

- Further evaluation needed
- Reduce Redundancy and Local dependence
- Use only with females

Conclusions

- AIDS is a major threat
- Primary prevention in youth necessary
- Further evaluation of SABSS-cam and IPSAS-cam essential before use in evaluating interventions.