Lessons Learned from the Oregon youth development project

Tary J. Tobin, Ph.D.
Claudia G. Vincent, Ph.D.
University of Oregon
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Overview: 4 Parts

- 1. Introduction to the Oregon Youth Development Program (OYDP)
- 2. Testimony from a high school peer leader/youth leader
- 3. Psychometric evaluation of the youth surveys used in the OYDP
- 4. Characteristics, issues, and outcomes of the Oregon Youth Development Program

1. Introduction to the Oregon Youth Development Program

- Funded by the Office of Adolescent Pregnancy Programs (OAPP)
- Under the Office of Population Affairs
- Part of the U.S. Department of Health and Human Services http://www.hhs.gov
- No official endorsement should be assumed.

A Federal Program

- **Awarded to Northwest Family Services (NWFS)**
  http://www.nwfs.org
- Grant No. 1 APHPA 006058-01-00
- An *Adolescent Family Life* (AFL) Demonstration Project
  http://www.hhs.gov/opa/familylife/index.html

Purposes

- Reach eighth grade boys and girls and provide skills, information, and support needed to delay the initiation of sexual activity.
- Test how a parental component might enhance a school program that was provided to all youth, using a randomized controlled trial (RCT).

2. Testimony from a high school peer leader/youth leader

3. Psychometric Evaluation of the youth survey used in the OYDP

- CORE Prevention Questionnaire—Baseline (CQ-B)
  - Developed by the federal office on Adolescent Family Life (AFL)
  - Was available at *http://www.hhs.gov/opa/familylife/core_instruments/index.html*
  - Now the (similar) AFL **Care** tools are posted there but not the **Prevention** tools.
  - We have copies of the CQ-B, available on request (see our e-mail addresses on title slide).

What are psychometric properties and why bother about them?

- Psychometric properties:
  - Reliability: Does the survey perform consistently
    - across respondents (inter-rater reliability)
    - across time (test-retest reliability)
    - across items (internal reliability)
  - Validity: Does the survey measure what it's supposed to measure?
    - Are the items relevant? (content validity)
    - Do the items cluster into well-defined constructs? (construct validity)
- The more we know about the reliability and validity of a survey, the better we can interpret the survey results

Components of the CQ-B

- Total of 43 items arranged into 7 subscales:
  - 1. activities (1 item)
  - 2. what you think (2 items)
  - 3. your family (11 items)
  - 4. what young people think and do (5 items)
  - 5. about you (4 items)
  - 6. more questions (6 items)
  - 7. what you think and do (14 items)

- Construct to be measured: “teen attitude towards sexuality”

Goals of the psychometric evaluation

- Examine
  - Content validity
    - (Do the items reflect the construct to be measured?)
  - Scale reliability
    - (Do items cohere into the defined subscales?)
  - Construct validity
    - (Do the items cluster into scales reflecting components of the construct to be measured?)

Study sample

- 7 middle schools
- Students from 8th grade health classes
- Total of 608 8th graders completed the CQ-B in the fall term of the 2009-2010 academic year
  - 311 girls
  - 288 boys
  - 9 gender unknown

Content validity

- CQ-B was derived from 13 existing instruments
- Of these source instruments
  - 8 (62%) did not have documented psychometric properties
  - 3 (23%) had some form of documented reliability
  - 2 (15%) had both documented reliability and validity

Content validity

- Of the 43 items on the CQ-B, 36 were derived from existing instruments
- Of those 36 items
  - 23 (64%) came from instruments that did not have documented psychometric properties
  - 7 (19%) came from instruments with documented reliability
  - 6 (17%) came from instruments with both documented reliability and validity

Scale reliability

- Coefficient alpha values (inter-correlation of items):
  - Subscale 1 (”Activities”)—cannot calculate
  - Subscale 2 (“What you think”): .550 (.710)
  - Subscale 3 (“Your family”): .828
  - Subscale 4 (“What young people think and do”): .751
  - Subscale 5 (“About you”)—omitted from analysis
  - Subscale 6 (“More questions”): .846
  - Subscale 7 (“What you think and do”):
    - Boys: .810
    - Girls: .838

Construct validity

- Items clustered into 6 identifiable factors:
  - Factor 1: “talking with parents about teen sexual activity”
  - Factor 2: “risky behaviors”
  - Factor 3: “compliance with adult rules and expectations”
  - Factor 4: “access to parental or adult support”
  - Factor 5: “refusal skills”
  - Factor 6: “awareness of adult rules and monitoring”

Construct validity

- Items that did not cluster into any of the 6 identified factors:
  - Sexual activity of closest friends
  - Likelihood of using birth control
  - Clarity of future goals
  - After school activities
  - Exposure to peer pressure
  - Only abstinence avoids pregnancy and disease
  - Good marriage seems realistic

Summary of Psychometric Evaluation

- Content validity of the CQ-B might be strengthened through more analysis
- Good scale reliability (cohesive measure)
- Good construct validity.
  - Identifiable factors focused on teens' efforts to fit into their immediate social environment defined by adult rules and expectations through communication with adults and access to adult support.
  - Value of abstinence, transmission of disease, use of birth control, and likelihood of future marriage seem to be less familiar territory

4. Characteristics, issues, and outcomes of the Oregon Youth Development Program

Why is a Randomized Controlled Trial (RCT) valuable?

- **The beauty of random assignment is that, in addition to controlling for factors that we know might bias the results, such as those taken into consideration in the stratification process, random assignment also controls for unknown factors.**

How was the stratified random assignment done?

- Closely matched pairs of schools based on:
- location type
- percent of students economically disadvantaged
- ethnic or racial percentages
- percent of Limited English Proficiency (LEP) students
- percent of students with disabilities
- overall Annual Yearly Progress (AYP)
- One school from each pair was randomly assigned to Enhanced Intervention (EI) and the other to Classroom Control (CC).

Experimental and control groups were very similar.

- Age, gender, ethnicity, race
- Minimal use of cigarettes, alcohol, and marijuana
- Few were dating older individuals
- Feeling pressure from others to do things they might get in trouble for
- Expectation that a “good marriage” is realistic
- Not many friends who already had sex

Sample size for full 2010-2011

- 1540 students
- 14 schools
- 799 students from 7 schools in the experimental group receiving the Enhanced Intervention (EI)
- 741 students from the other 7 schools in the control group, the Classroom Comparison (CC).

Expectation-maximization (EM)

- For the questionnaire items that were related to the evaluation of project objectives and performance measures, for statistical tests of group averages, missing data analysis was conducted using EM (expectation-maximization) with no more than 25 iterations, using all quantitative variables for predictions, in PASW® (Predictive Analytics SoftWare) Statistics, Version 18 and IBM SPSS Statistics Version 19.

Characteristics of the program as implemented in classrooms for all youth

- Developed by NWFS and included elements from their *Youth Solutions* and *FACTS/Datos* materials
- (Fuller, McLaughlin, Bankston, Taylor, Fuller, 2009 – from Northwest Family Services)

NWFS staff present lessons on

- establishing healthy boundaries
- influence of the media
- interactive activity illustrating the consequences of premarital sex and the benefits of abstinence

NWFS staff also provided

- a contest in which students submit creative pieces representing their reasons for choosing abstinence
- with high school peer leaders, lessons that included a socio-drama and an interactive discussion with the eighth graders focusing on refusal skills

Certified teachers of the school's health classes present lessons on

- 1) maturity including importance of thinking before acting
- 2) reproductive anatomy and physiology
- 3) understanding my values
- 4) managing internal pressures
- 5) building a base of support

- 6) self-respect,
- 7-8) healthy friendships and relationships,
- 9) information on sexually transmitted infections,
- 10) understanding love, infatuation,
- 11) managing peer pressure,
- 12) safe activities, parties, and dating,
- 13) making a commitment.

Found a Positive Effect for Both Groups from the Youth Intervention

- **Easier to talk to parents about topics related to sexual behaviors and abstinence**
- **Did talk with their parents more frequently**
- **Increase in number who said it was important for them to not have sex until marriage**

- **Increased understanding of the benefits of waiting for meeting educational and personal goals**
- **Increased in confidence that "I have learned to stay away from people who might get me in trouble."**

Issues in delivery of strategies to improve parent-child communication

Parent interventions included

- Doing homework with the child and returning a signed acknowledgement card;
- Reading an information packet including communication starters for each classroom lesson
- Reading paper and/or e-newsletters

- *How to Teach the FACTS of Life* workshops
- *Love and Logic* workshops
- Webinars
- Family interactive events that were held at the school

- Basic information on “parent-teen communication” was sent to parents directing them to the www.talktothem.org and www.4parents.gov

Enhanced Intervention

- Increased parental monitoring
- Improved attitudes toward teen abstinence

Parental monitoring

- of their children's activities and knowledge of their children's friends is extremely important for positive youth development.

Questions?