The Accuracy of Self Reports of Unprotected Sex

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Statement of Problem

- Self reports of protected/unprotected sex are widely used in behavioral research and clinical trials
- There is no “gold standard” to validate them
- How do we determine and maximize the validity of self reports?

Defining the Behavior of Interest

- Number of sexual partners and who the partners are
- Use of protection during acts of sexual intercourse
  - Frequency of unprotected sex
  - Consistency of use
  - Accuracy of use
- Defining terms for respondents: Time intervals, use

Past Validation Approaches

- Prediction of STDs
- Couple reports
- Construct validity: Theoretical coherence
- Imperfect bio-markers
- Aggregated behavior approach

Aggregated Behavior Approach

- Measure behavior each week for 52 weeks
- Assess long term recall at selected intervals (e.g., 6 months, 12 months)
- Aggregate weekly data and compare with long term self reports
- Assumptions relevant to diary methodology and other self report strategies, so consider in more detail

Assumption 1: People Will Provide Truthful Answers

- Self administered, not face to face
- Assured of confidentiality
- Proper instructional sets
- Honesty contract
- Use of social desirability scales

Assumption 2: No Testing Effects

- Effects on sexual behavior (repeated assessments)
- Effects on recall accuracy

Not perfect but aggregated behavior is a reasonable standard to use for evaluating measurement issues

Typical Measure Formats

Numerical Reports

- Frequency of Sex - Frequency of Condom Use
- Frequency of Condom Use / Frequency of Sex

Rating Scales

Rating Scale Example

Of the times that you had sexual intercourse in the past six months, how often did you and your partner use a condom?

___ Never

___ Hardly at all (1 to 19% of the time)

___ A small part of the time (20% to 39%)

___ About half the time (40% to 59%)

___ Most of the time (60% to 70%)

___ Almost all of the time (80% to 99%)

___ Always

Response Translation Issues

- Practice and comprehension tasks
- Rounding of higher frequencies
- Number of categories, choice of adverbs, step strategies

Dual Process Model of Self Reports

- Judgment process
- Response translation process

Cognitive Processes in Frequency Judgments

Episodic Strategies

- Think of time period and recall each occurrence, counting them up as each event is recalled.
- Think backward and think forward strategies
- Adopt when time intervals are short and behavioral frequencies are low
- Subject to forgetting and interference effects

Cognitive Processes in Frequency Judgments

Rule Based Strategies

- Invokes a rule to generate a frequency judgment
- More likely for long durations and high frequency behaviors

Choice of Time Duration

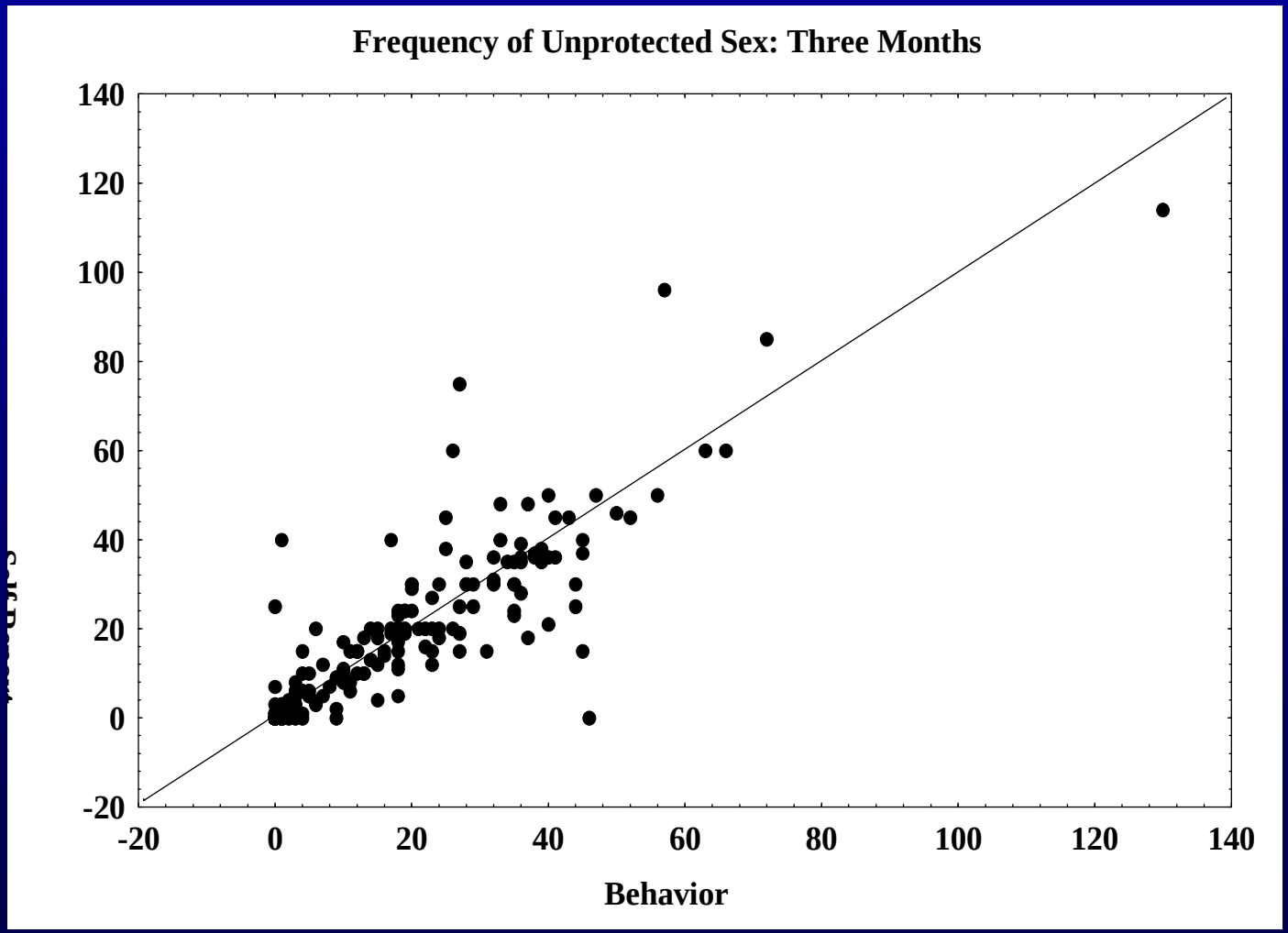
1 Month, 3 months, 6 months, 12 months

- Balancing of episodic and rule based strategies
- Sensitivity to absolute error
- Sensitivity to individual differences
- Complexity of mental calculations
- Ability to keep track of time period

Levels of Accuracy Analysis

- Accuracy at the aggregate level
- Accuracy at the individual level
- Results at the two levels

Individual Level Analyses: Scatterplot



Summary: Accuracy of Self Reports

- Accuracy can differ with choice of criterion behavior
- Aggregate versus individual level accuracy can differ
- Overall, there is often a reasonable degree of accuracy of self reports if proper measurement protocols are followed

  Be cautious of studies using poor protocols
- Qualified by presence of 2% to 5% outliers

Choice of Time Frames

- Classic view is for short time frame

- Data suggest moderate length time frame may be best, but depends on study purposes and target population

Additional Points

- Bias in self reports is not necessarily problematic
- Triangulation, multiple measures and strategies for dealing with disparities in indicators (e.g., sensitivity analysis; latent variable modeling)
- Keep dual process theory in mind as we design measures

Cultural Considerations

- Etic-emic perspectives
- Facets of measurement
  - Who is measured (age, gender)
  - When are they measured
  - In what context are they measured (privacy; sensitivity)
  - How are they measured (what questions asked)
  - Who conducts the interview (gender, age, occupation)
- Importance of probative pilot studies