Survey Assessment of Substance Use & Misuse

How do we gather information about *whether*, *when*, *how*, *and why* people are using opioids and other substances? Reliably? Accurately?

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Psychological Methods

Survey Approaches

- Will consider 4 methodological approaches:
    - Self-Report (traditional, smart-phone or app-based)
    - Interview (in person, computer-assisted)
    - Collateral Report (significant others, medical records)
    - Biological tracking (including mobile tracking)

- For each, will consider methodological, practical, ethical challenges
    - Ways of ensure most accurate and reliable reporting
    - Balancing time and cost demands
    - Legal and ethical issues around reporting
        - "Person in Place" assessments, Ecological Momentary Asessment, traditional survey assessment

- Apply to research questions that interest you!

Considerations

- What do you want to assess?
  - Use? Problems associated with you? Urges/Craving? Other?

- When do you want to assess? Frequency? Number of assessments?
  - "Person in Place", Ecological Momentary Assessment (EMA) Allows for real-time, in the moment assessment of substance behavior, outcomes.
    - Trade off between frequency and comprehensiveness of methods
    - Also, concerns about reactivity

- How to ensure accuracy, validity of information?
  - Are participants giving accurate information?
  - Have you crafted your questions to enhance valid reporting?*
  - What circumstances might influence reporting?
  - Implications of frequency, number of assessments for reporting quality

- Convenience, cost of data collection
  - Including burden to participants

- Privacy, legality, consequences of reporting

- Ethical and Methodological Concerns:
  - In real world, encounter real world situations.
    - Harmful/dangerous use?
    - Obligations to intervene? (especially in real time)
    - Ability to report in various contexts (What else is going on?)
    - Illegal behaviors?

Recent Example

In the past 3 months, when drinking, how many drinks do you typically have on a single occasion?

    a. None-N/A _____

    b. Less than one _____

    c. 1 drink _____

    d. 2-3 drinks_____

    e. 4 -5 drinks _____

    f. 6 or more drinks _____

Recent Example

In the past 3 months, when drinking, how many drinks do you typically have on a single occasion?

- None-N/A _____
- 1 drink or less_____
- 2-3 drinks _____
- 4 -5 drinks _____
- 6-7 drinks _____
- 8 or more drinks ____
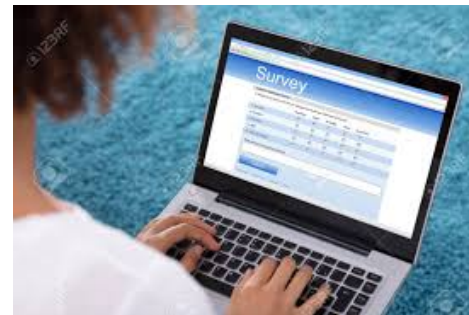
Types of Assessment

- Self-Report
  - Individual reports on his or her drinking
    - Paper & pencil/computer methods
    - Electronic reports

- Interviewer-Based
  - Individual reports on drinking to a trained interviewer

- Biological
  - Methods for testing for alcohol use and its effects by taking physical assessments

- Collateral
  - Close friend or relative reports on/corroborates alcohol use

Self-Report Measures

- Research supports self-report of alcohol under following conditions:
  - Individuals must be alcohol free during assmt.
  - Confidentiality must be assured
  - Setting designed to encourage honest reporting
  - Clear, understandable wording of questions

- Common approaches:
  - Paper & pencil
  - Computer-based
  - "daily diary"
  - Phone-based

Self-Report: Challenges

- Memory bias/problems with recall
- Self-awareness
- Social desirability
- Participant reactivity

Interview

- Timeline Follow Back
  - Structured interview
  - Used to obtain detailed picture of alcohol and other substance use behaviors
  - Structured like a calendar
  - Identifies PATTERNS of substance use behavio

Interview

- Diagnostic Interviews:
  - Considered the "gold standard" in assessment.
  - Standard set of questions
    - All interviewees asked the same question
  - Often require extensive training
  - Yields diagnosis (e.g., DSM, ICD)
  - Interrater reliability
    - Two independent raters evaluate and score
  - Often in person, but can be computerized (e.g., Computer-Assistend Interviewing, audio CASI)
  - Time varies significantly, but most take at least 15-20 minutes.

Interview: Challenges

- Time consuming, costly
- Often requires participants to come in person.

Collateral Information

- Incorporates alcohol use information from multiple sources
  - Friends/family members
  - Employment/EAP
  - Physicians/Medical Care personnel
  - Military Service/Medical Records

- Can be used to corroborate individual's self-report OR as a "bogus pipeline" to enhance the veracity of an individual's report

Collateral Information- Challenges

- Privacy, confidentiality of records
- Access
- Validity?
- Other reports not necessarily any more accurate than self-report

Biological Methods

- Reliable way of assessing RECENT substance use
  - Can be done a daily, weekly, etc. intervals
  - Also can be monitored continuously

- Urinary, saliva, breath analysis can assess alcohol or other drugs within approx. 24 hours.

- Typically, highly accurate

- Not subject to some of challenges of self-report (e.g., memory bias, etc)

Biological Methods-Challenges

- Does not flag ongoing, problematic substance use
- ONLY gathers substance information
- Can be cumbersome, invasive
- Not private

- You want to assess whether MAT is effective and feasible for opioid-dependent inmates at the community prison.

- You want to examine the impact of your city's public health advertisements on marijuana consumption in adolescents.

Your Turn

- What is your research question?
- What method will you use to assess?
- How often will you assess?
- How will you ensure the accuracy of data? How will you handle challenges to this (be sure to include ethical as well as practical challenges)?