

Interviewer effects in the elicitation of sexual and drug injection partners

Devon D. Brewer

John J. Potterat

Stephen Q. Muth

Research funded in part by

National Institute on Drug Abuse grant no. DA12069

Interviewer effects = variation in interviewee responses attributable to the characteristics/behavior of interviewers

- can introduce substantial error/unreliability**
- open-ended questions that require probing and detailed recording most susceptible (Fowler & Mangione, 1990)**

Interviewer effects in eliciting networks

- elicit individual persons by name or some other identifier; sum number elicited
- intraclass correlation (ICC) as measure
- van Tilburg (1998) - Dutch elderly, multi-domain elicitation questions
 - ICC = .22, adjusted ICC = .15
- Marsden (2003) - U.S. adults, “good friends”
 - ICC = .15, adjusted ICC = .13
 - respondent estimates ICC = .04

To what extent do interviewer effects on the elicitation of sexual and drug injection partners exist?

- **sensitive information, might expect even larger interviewer effects**

Data sets

1) Seattle, 1996-7 (Brewer et al.)

- MSM, IDUs, & “high risk” heterosexuals**

2) Seattle , 1999 (Brewer & Garrett)

- same populations as prior study**

3) Colorado Springs, 1981 (Potterat et al.)

- gonorrhea cases**

4) Colorado Springs, 1988-92 (Potterat et al.)

- prostitutes, clients, IDUs, their partners**

5) Colorado Springs, 2000-1 (Brewer et al.)

- chlamydia, gonorrhea, and syphilis cases**

- **Recall periods ranged from 1 wk - 2 years**
- **Sex partners elicited in all studies**
- **Some studies involved partner notification/tracing partners (3), anonymous interviewees/partners (2), variable recall periods (1), delayed interviews (2), multi-relation elicitation question (1), scripted elicitation question (3), injection partner elicitation (3), systematic interviewer assignment (2)**

Two studies involved recall cues; cue-elicited partners not counted here

Analytic strategy

- **measure ICC for number elicited and numerical estimates via ANOVA:**
 $(MSB - MSE) / (MSB + (k - 1) MSE)$, where $k = \# \text{ respondents} / \# \text{ interviewers}$
- **partial ICC via ANCOVA, adjusting for strongest respondent and methodological covariates, maintaining 10:1 case to variable ratio or higher**
- **zero-order ICC adjusted for variable recall periods & interviews delays (if present)**

Interpretation

- **causal interpretations tentative, given lack of truly randomized interviewer assignments**
 - **however, some assignment procedures likely approximated randomization**
- **covariates not exhaustive, so partial ICCs not “pure” measure of interviewer effects**

Mean (sd) of number elicited/estimated

<u>Study</u>	Sex partners		Injection partners	
	<u>Elicit</u>	<u>Estim.</u>	<u>Elicit</u>	<u>Estim.</u>
1	8 (13)	16 (47)	11 (10)	33 (142)
2	8 (9)	13 (36)	19 (18)	17 (17)
3	2 (1)	---	---	---
4*	3 (3)	5 (27)	4 (5)	4 (6)
5	2 (2)	---	---	---

*prostitute women excluded

1) Seattle, 1996-7

	ICC	
	<u>Zero-order</u>	<u>Partial</u>
Sex (<u>n</u> = 142)		
Elicited	-.01	-.01
Estimated	.02	-.03
Injection (<u>n</u> = 89)		
Elicited	-.03	-.03
Estimated	-.05	-.02

2) Seattle, 1999

	ICC	
	<u>Zero-order</u>	<u>Partial</u>
Sex (<u>n</u> = 79)		
Elicited	-.01	-.02
Estimated	-.03	-.02
Injection (<u>n</u> = 96)		
Elicited	-.01	-.02
Estimated	.04	-.01

3) Colorado Springs gonorrhoea partner notification, 1981

	ICC	
	<u>Zero-order</u>	<u>Partial</u>
Sex (<u>n</u> = 777)		
Elicited	.01	.00

4) Colorado Springs networks study, 1988-1992 (prostitute women excluded)

	ICC	
	<u>Zero-order</u>	<u>Partial</u>
Sex (<u>n</u> = 401)		
Elicited	.04	.02
Estimated	-.01	.00
Injection (<u>n</u> = 155)		
Elicited	.06	.07
Estimated	-.01	.03

5) Colorado Springs STD partner notification, 2000-01

	ICC	
	<u>Zero-order</u>	<u>Partial</u>
Sex (<u>n</u> = 121)		
Elicited	.00	.09

Summary - median (range)

	ICC	
	<u>Zero-order</u>	<u>Partial</u>
Sex		
Elicited	.01 (-.01-.04)	.00 (-.02-.09)
Estimated	-.01 (-.03-.02)	-.02 (-.03-.00)
Injection		
Elicited	-.01 (-.03-.06)	-.02 (-.03-.07)
Estimated	-.01 (-.05-.04)	-.01 (-.02-.03)

Other results

- no evidence of interviewer sex x respondent sex interaction (same sex pairing ~ opposite sex pairing)

Discussion

- **No consistent or large interviewer effects**
- **Limitations: only 5 studies, 12 interviewers, and approximately 1,600 respondents; most interviewers trained similarly**
- **Interviewing techniques (e.g., prompting, recall cues) increase elicitation**
 - **no interviewer effects re forgetting, cue effectiveness (Brewer et al.)**

Speculation about our results vs. Marsden and van Tilburg (moderately large ICCs)

- concrete, standardized definition of relation (sex and injection contact)**
- interviewer assertiveness, motivation, and ego-involvement**