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## Chapter 10: Unintended Interviewer Bias in a Community-based Participatory Research Randomized Control Trial among American Indian Youth Appendix 10

Patrick Habecker

Jerreed Ivanich

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Chapter 10: Unintended Interviewer Bias in a Community-based Participatory Research  
Randomized Control Trial among American Indian Youth

Appendix 10

Patrick Habecker and Jerreed Ivanich

Full book reference:

Olson, K., J. D. Smyth, J. Dykema, A. L. Holbrook, F. Kreuter, B. T. West. 2020. *Interviewer Effects from a Total Survey Error Perspective*. Boca Raton: CRC Press.

## Appendix 10A Analysis of Internalizing and Externalizing Subscales

Here we assess the relationship between our three privacy measures and the three subscales of the overall internalizing measure: anxiety, withdrawn, and somatic complaints (Table A10A.1). Knowing an interviewer lowers the reported counts of anxiety (-1.031,  $p < 0.05$ ) in isolation (model 1) and by -1.036 ( $p < 0.05$ ) in the combined model 4. The presence of a 3<sup>rd</sup> party and the interview location are not associated with anxiety reports.

Knowing the interviewer is associated with lower withdrawn reports (-0.923,  $p < 0.01$ ) in isolation (Table A10A.1, model 5) and by -0.912 ( $p < 0.01$ ) in the combined model 8. The presence of a 3<sup>rd</sup> party and the interview location are not associated with withdrawn reports. There is a significant negative association between withdrawn reports and age, such that every year older a participant is reduces the withdrawn reports by about a half point (-0.469,  $p < 0.01$ ).

Knowing an interviewer is also associated with lower reports of somatic complaints (-1.561,  $p < 0.001$ ) in isolation (Table A10A.1, model 9) and by -1.519 ( $p < 0.01$ ) in the combined model 12. The presence of a 3<sup>rd</sup> party and the location of the interview are not associated with reports of somatic complaints. Age is associated with lower somatic complaints such that every year increase is associated with a reduction in somatic complaints of -0.714 ( $p < 0.01$ ) in model 12 with similar effect sizes in models 9-11.

Table A10A.1: Linear Mixed-Effects Models Predicting Subscales of Internalizing Behavior

	<i>Dependent variable:</i>											
	Anxiety				Withdrawn				Somatic Complaints			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Female	0.219 (0.41)	0.197 (0.42)	0.185 (0.42)	0.209 (0.42)	0.113 (0.30)	0.092 (0.30)	0.107 (0.30)	0.130 (0.30)	0.566 (0.39)	0.591 (0.40)	0.605 (0.40)	0.622 (0.40)
Age	-0.363 (0.23)	-0.368 (0.23)	-0.369 (0.23)	-0.367 (0.23)	-0.475** (0.17)	-0.479** (0.17)	-0.470** (0.17)	-0.469** (0.17)	-0.728*** (0.22)	-0.725** (0.22)	-0.700** (0.22)	-0.714** (0.22)
Know Interviewer	-1.031* (0.47)			-1.036* (0.47)	-0.923** (0.34)			-0.912** (0.34)	-1.561*** (0.46)			-1.519** (0.46)
Present 3 <sup>rd</sup> Party		0.127 (0.47)		0.007 (0.47)		0.077 (0.34)		0.035 (0.35)		0.400 (0.46)		0.466 (0.45)
Interviewed in Home			0.112 (0.45)	0.143 (0.45)			-0.257 (0.33)	-0.235 (0.33)			-0.739 (0.45)	-0.823+ (0.44)
Constant	8.989*** (2.10)	8.682*** (2.13)	8.758*** (2.11)	8.984*** (2.12)	9.175*** (1.53)	8.922*** (1.56)	8.973*** (1.54)	9.154*** (1.55)	13.349*** (2.02)	12.632*** (2.06)	12.914*** (2.04)	13.083*** (2.03)
N	365	365	365	365	365	365	365	365	365	365	365	365
AIC	2,044	2,048	2,048	2,047	1,813	1,820	1,820	1,817	2,013	2,023	2,021	2,013

+ p&lt;0.1; \* p&lt;0.05; \*\* p&lt;0.01; \*\*\* p&lt;0.001

Table A10A.2 presents models predicting the subscales of externalizing behavior: rule breaking and aggressive behavior. These analyses are conducted in case of possible suppression effects that one scale may have on the total externalizing outcome. No privacy measures are significant in any independent model – in isolation or combination in Table A10A.2. However, we do notice a difference between girls and boys in the number of rule breaking reports. Here girls on average provide about -0.682 ( $p < 0.01$ ) fewer rule breaking reports than boys (models 1-4). There were no associations between gender and the aggression subscale. The participant's age was not associated with either the rule breaking or aggression subscales.

Table A10A.2: Linear Mixed-Effects Models Predicting Subscales of Externalizing Behavior

	Rule Breaking				Aggression			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Female	-0.682** (0.26)	-0.674* (0.26)	-0.684** (0.26)	-0.682** (0.26)	-0.681 (0.52)	-0.681 (0.52)	-0.737 (0.52)	-0.719 (0.52)
Age	-0.033 (0.14)	-0.033 (0.14)	-0.035 (0.14)	-0.038 (0.14)	-0.215 (0.28)	-0.221 (0.28)	-0.235 (0.28)	-0.236 (0.29)
Know Interviewer	0.229 (0.30)			0.243 (0.30)	-0.453 (0.58)			-0.461 (0.59)
Present 3 <sup>rd</sup> Party		0.116 (0.30)		0.125 (0.30)		0.314 (0.59)		0.157 (0.59)
Interviewed in Home			0.107 (0.29)	0.093 (0.29)			0.667 (0.56)	0.655 (0.57)
Constant	2.759* (1.33)	2.740* (1.34)	2.811* (1.33)	2.686* (1.34)	8.228** (2.62)	7.936** (2.64)	8.119** (2.61)	8.126** (2.65)
N	365	365	365	365	365	365	365	365
AIC	1,710	1,710	1,710	1,713	2,206	2,206	2,205	2,208

+  $p < 0.1$ ; \*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$