

Does a history of sexual and physical childhood trauma contribute to HIV infection risk in adult pregnant women?

S Shamu^{1,2,3}, N Abrahams^{2,4}, P Shamu⁵ M Temmerman⁶, L Kuwanda¹, T Shefer⁷, C Zarowsky^{2,8}

Research Unit, Foundation for Professional Development, Pretoria, South Africa¹, School of Public Health, University of the Western Cape, South Africa², School of Public Health, University of the Witwatersrand, Johannesburg, South Africa³, Gender and Health Research Unit, South African Medical Research Council, South Africa⁴, Wits Reproductive Health and HIV Institute, Johannesburg, South Africa⁵, International Centre for Reproductive Health, Ghent University, Belgium⁶, Department of Women and Gender Studies, University of the Western Cape, Belville, South Africa⁷, University of Montreal Hospital Research Centre, Montreal, Canada⁸

Introduction

- Growing concern on sexual and physical traumatic events in childhood on adult HIV acquisition in low income populations
 - Women abused in childhood are more likely to take HIV tests than non-abused but more test HIV negative (Richter et al 2014 Aids Behaviour)
 - Associations between abuse and HIV were found on men but not on women
 - A systematic review found a small positive relationship between child sexual abuse (CSA) and subsequent HIV risk behavior among women (Ariolla et al 2005)
- Is a history of physical and sexual trauma and other characteristics of early sexual involvement associated with an HIV positive test in antenatal care (ANC) among adult women?

Methods

- The study was conducted in 2011 at 6 post natal clinics in a low income urban neighbourhood in Harare
- Interviewer administered questionnaire used to collect information from post natal women
 - Demographics, Child sexual & physical abuse, sexual experiences, partner demographics
- HIV information was abstracted from clinic records and participants' medical cards
 - Determine™ rapid test with positive results confirmed using Capillus, and the Western blot was used to resolve any conflicts

Measures

- 1. Child physical abuse:** whether anyone ever “excessively” beat or physically mistreated the woman in any way before age 15
 - “Excessive” to identify abuse from culturally acceptable disciplinary measures in Zimbabwe (Shumba 2001)
- 2. Child sexual abuse:** assessed whether anyone ever forced her to have sex or to perform a sexual act or ever touched her sexually when she did not want to before age 15
- 3. Forced first sexual intercourse – non-consensual sex – either forced or raped**
 - Respondents were asked whether their first sexual intercourse occurred when they were willing, tricked, persuaded, forced or raped

Recruitment and data collection

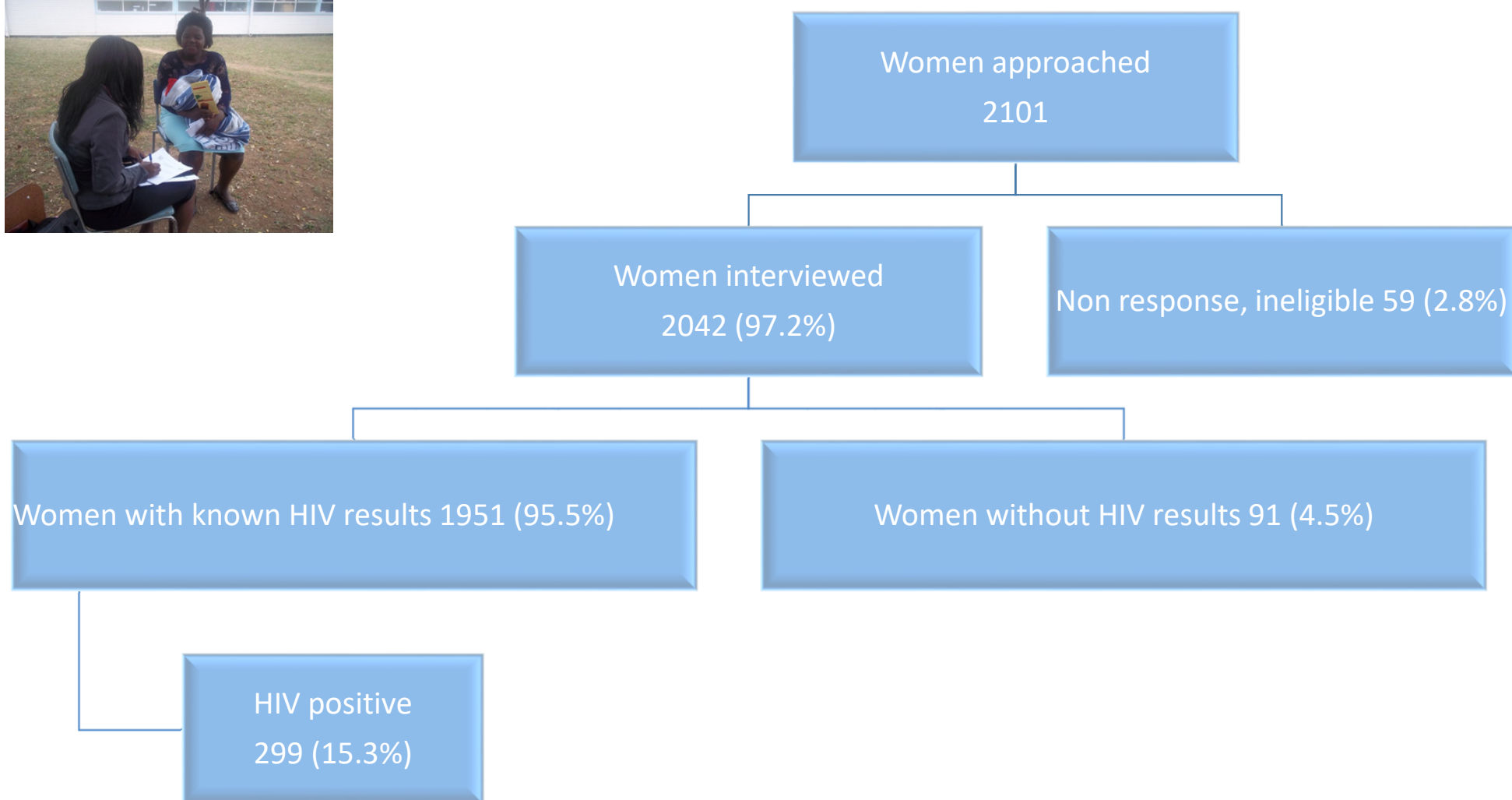


Women approached
2101

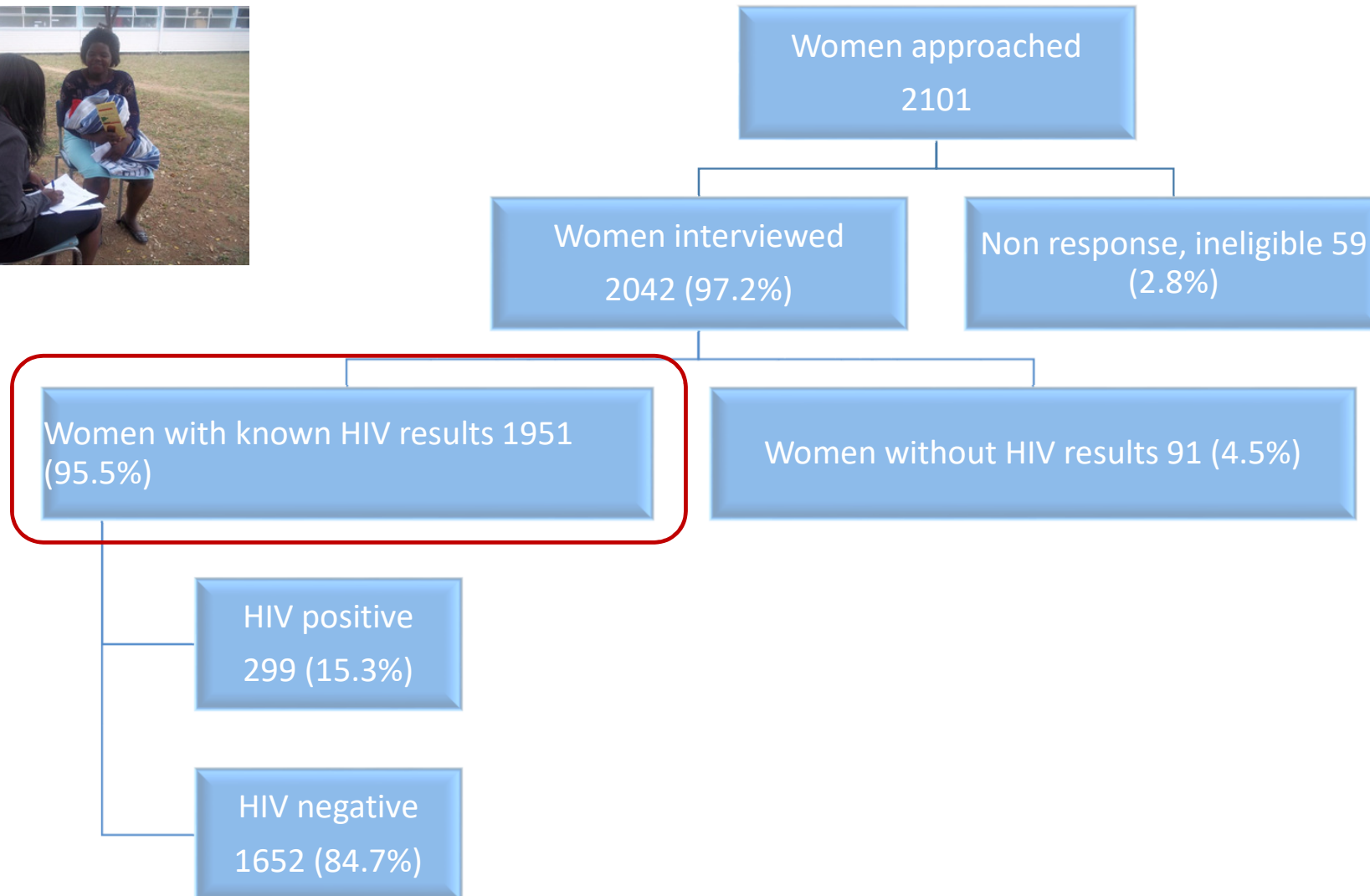
Women interviewed
2042 (97.2%)

Non response, ineligible 59
(2.8%)

Recruitment and data collection



Recruitment and data collection



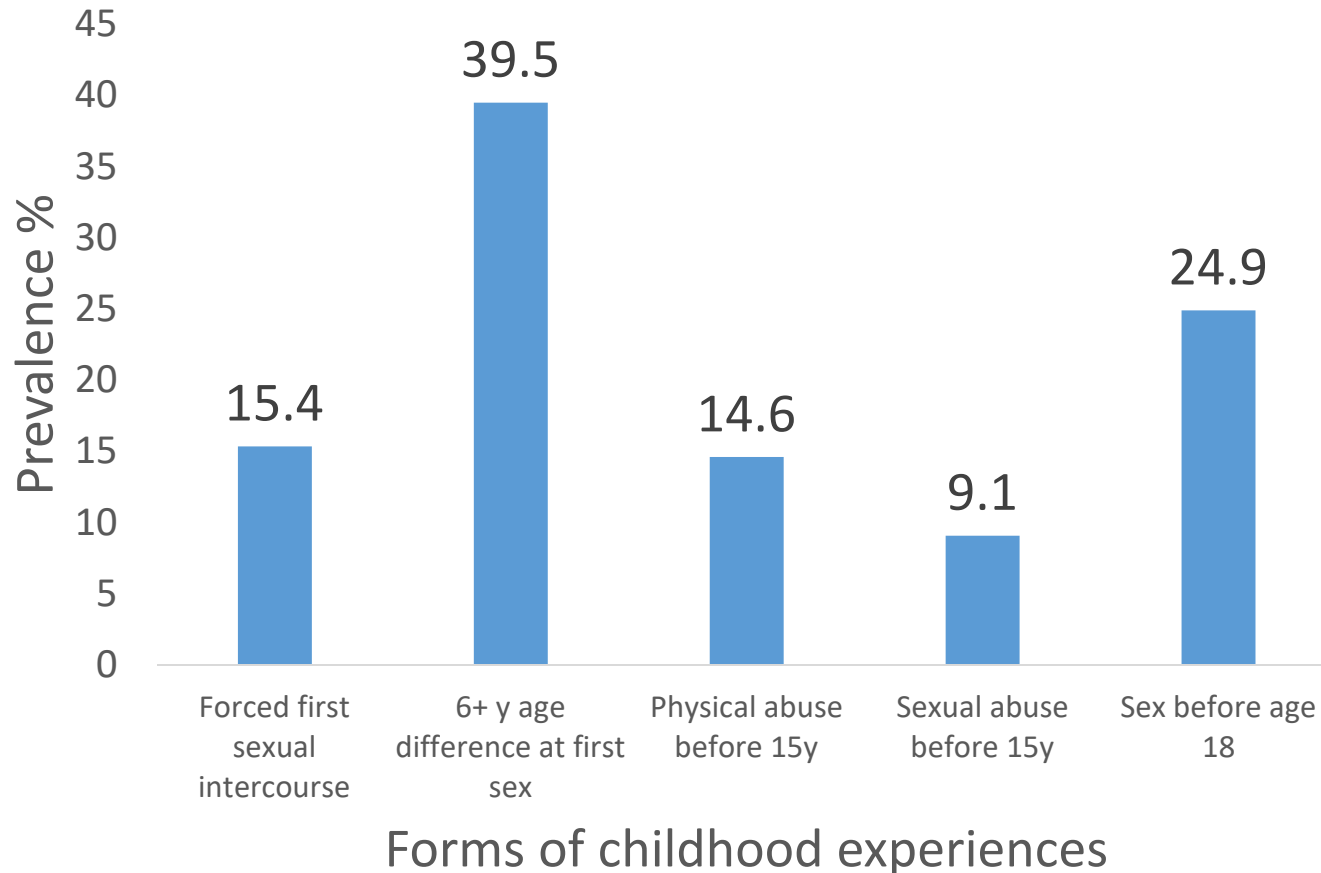
Analysis

- All data analysis were done in Stata 13
- 95% CI in prevalence of
- Multiple logistic regression analysis
- Controlled for demographic variables and past violence experiences as per the literature and our knowledge of violence experiences

Comparison of participants with and without HIV status results N=2042

	With HIV status results (n=1951)	Without HIV status results (n=91)	p value
Mean age	26.26 (25.98-26.54)	26.41 (25.24-27.58)	
Attended tertiary education	7.25	7.69	0.873
Employed	30.03	26.97	0.537
Married	11.79	12.09	0.933
Any form of child abuse	26.67	20.48	0.157
Gravida	2.20(2.14-2.25)	2.54 (2.24-2.85)	
Partner has tertiary education	13.92	21.11	0.057
Partner's mean age	31.3 (31.02-31.59)	31.72 (30.29-33.15)	

Prevalence of Childhood experiences (N=1951)



Prevalence of Childhood experiences (N=1951)

	%	Mean	95%CI
Mean age difference at first sex	5.17		5.01-5.34

Prevalence of childhood abuse by HIV status (N=1951)

	HIV+ (n=299)		HIV- (n=1646)		Sig (p-value)
	n	%	n	%	
Forced first sexual intercourse	67/299	22.4	232/1646	14.10	0.000
Age difference at sexual intercourse (6y+)	121/287	42.16	635/1625	39.08	0.325
Child sexual abuse	46/299	15.38	131/1643	7.97	0.000
Physical sexual abuse	57/299	19.26	227/1646	13.79	0.014
Sex before age 18	103/297	34.68	381/1645	23.16	0.000

Multiple regression analysis showing childhood violence and experiences associated with HIV (n=1951)

Variable	aOR	95% CI
Forced first sexual intercourse	1.49	1.12-2.22
Age difference at first sexual intercourse (6y+)	1.04	1.01-1.07
Child sexual abuse	1.76	1.16-2.66
Child physical abuse	1.50	1.07-2.11
Sex before age 18	1.48	1.08-2.02

Summary of major findings

- High rates of HIV
- High rates child abuse experiences
- Early childhood abuse, early sexual debut and intergenerational first sex were associated with HIV infection detected in antenatal care

Discussion

1. Early childhood abuse

- Works through mental health by lowering self esteem leading to gender inequitable behaviours such as non-negotiating condom use and justifying sexual abuse

2. High age differences at sexual initiation

- Age mixing with men who have many sexual partners
- Older men have more sexual experiences and are more likely to be infected in their thirties (mean age 31y falls in the high risk group – 25-35)

3. Early sexual debut: (Pettifor et al 2004)

- higher risk profiles including multiple partners and not finishing high school

Limitations and Strengths

Limitations

- Cross sectional study
 - No cause and effect – we do not know when they were infected by HIV
 - Longitudinal studies from childhood until they are pregnant
- Facility based study
 - population based studies give representative estimates

Strengths

- Large sample size, multiple and tested measures, controlled for confounding factors

Conclusions

- The study shows associations between childhood adversaries and HIV infection
- School institutions and parenting practices/institutions are needed to prevent abuse of children and promote safer homes and places of learning
- Further research is needed – eg longitudinal studies eg SAMRC's Gender and Health Research Unit tracking rape survivors to monitor impact on later life experiences

Acknowledgements

- VLIR-UOS, Belgium scholarship
- ADDRf-African Population & Health Research Centre
- University of the Western Cape
- Southern African Medical Research Council
- Harare City Health, clinics and staff
- University of Zimbabwe
- Foundation for Professional Development
- Research participants
- Research assistants