

# Perceived parental and adolescents willingness to participate in future HIV vaccine prevention trials: A survey conducted amongst adolescents in Soweto, South Africa

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# Soweto



- Most populous residential area in SA

- Population is between 1M and 3M



- Low to moderate socio-economic status

- Home to around 43% of Johannesburg metro residents

- High unemployment rate

# Background

- Adolescents in South Africa are vulnerable to HIV infection
- The highest rates of HIV infection in South Africa occur among young people
- Risky sexual behaviour among adolescents in South Africa is exemplified by high teenage pregnancies (15.5% in 15-24 year olds in 2004)
- Adolescents in South Africa are generally exposed to HIV prevention messages (90.2 % in 2008) and disease aetiology
- Hence adolescents in South Africa are potential candidates for HIV vaccine studies
- The aim of the overall study was to develop a risk reduction intervention for adolescents who choose to participate in HIV prevention trials eg vaccine

# Rationale of the study

We hypothesized that adolescent willingness to participate in HIV vaccine trials and perceived parental willingness to participate is influenced by gender, self-esteem, depression and parent adolescent communication

# Aim

- Determine the interest of adolescents and predictors of willingness to participate and perceived parental willingness to participate in future HIV prevention trials of adolescents in Soweto

# Methodology

- Inclusion criteria: Age 16-18 years and be a resident of Soweto
- Participants were recruited around schools and shopping centres
- Survey was interviewer administered
- Interviewers explained the terms microbicide, vaccines and male circumcision prior to completion of this section of the questionnaire

- Parent-Adolescent Communication (PAC) categories:
  - Poor  $\leq$  Median
  - Good  $>$  Median
- Children's Depression Index (CDI):
  - No  $\leq$  19
  - Yes  $>$  19
- Rosenberg self-esteem scale:
  - Low  $<$  15
  - Normal: Between 15 and 25
  - High  $>$  25

# Statistical analysis

- Coefficient of reliability (cronbach alpha)
- Descriptive statistics
- Univariate and multivariate logistic regression (using forward selection)
- 5% significance level

# Results

- A total of 303 participants enrolled into the study (176 females and 127 males)
- Females had a significantly higher mean PAC score compared to males ( $p=0.027$ )
- Mean self esteem scores were even by gender
- Mean depression scores were not different by gender ( $p=0.11$ )
- 91%( $n=273$ ) were willing to participate and 88%(266) perceived parental willingness to participate

# Adolescent willingness results

	<b>If there was a study taking place that could prevent HIV infection in teenagers such as a vaccine study, how willing would you be to take part?</b>	
	<b>Willing (N=273)</b>	<b>Not willing (N=27)</b>
<b>Median PAC score (overall median 16)</b>	16	15
<b>Median Self esteem score (overall median 22)</b>	22	22
<b>Median depression scores (overall median 9)</b>	9	9
<b>Gender</b>		
Females	166 (61%)	9 (33%)
Males	107 (39%)	18 (67%)
<b>PAC</b>		
Good	126 (46%)	8 (30%)
Poor	147 (54%)	19 (70%)
<b>Self esteem</b>		
High	50 (18%)	6 (22%)
Normal	212 (78%)	20 (74%)
Low	11 (4%)	1 (4%)
<b>Depression</b>		
Yes	20 (7%)	4 (15%)
No	253 (93%)	23 (85%)

	<b>Univariate</b>		<b>Multivariate</b>	
	<b>OR (CI)</b>	<i>p-value</i>	<b>OR (CI)</b>	<i>p-value</i>
<b>Gender</b> Female Male*	<b>3.1 (1.35,7.16)</b> 1	<b>0.008</b> 1	<b>3.01 (1.27,7.16)</b> 1	<b>0.013</b> 1
<b>Self-esteem</b> High Low Normal*	0.79 (0.3,2.06) 1.04 (0.13,8.46) 1	0.62 0.97 1	0.68 (0.25,1.84) 1.98 (0.19,20.4) 1	0.44 0.57 1
<b>Depression</b> No Yes*	2.2 (0.69,6.99) 1	0.18 1	3.12 (0.82,11.8) 1	0.1 1
<b>PAC</b> Good Poor*	2.04 (0.86,4.81) 1	0.11 1	1.64 (0.67,4.03) 1	0.28 1

\*Reference category

# Perceived parental willingness results

	How willing would your parents be for you to participate in future HIV trials?	
	Willing (N=266)	Not willing (N=36)
<b>Median PAC score</b> (overall median 16)	16	13.5
<b>Median Self esteem score</b> (overall median 22)	22	21.5
<b>Median depression scores</b> (overall median 9)	9	9
<b>Gender</b>		
Females	160 (60%)	15 (42%)
Males	106 (40%)	21 (58%)
<b>PAC</b>		
Good	126 (47%)	10 (28%)
Poor	140 (53%)	26 (72%)
<b>Self esteem</b>		
High	51 (19%)	6 (17%)
Normal	207 (78%)	26 (72%)
Low	8 (3%)	4 (11%)
<b>Depression</b>		
Yes	18 (7%)	6 (17%)
No	248 (93%)	30 (83%)

	<b>Univariate</b>		<b>Multivariate</b>	
	<b>OR (CI)</b>	<i>p-value</i>	<b>OR (CI)</b>	<i>p-value</i>
<b>Gender</b>				
Female	2.1 (1.04,4.28)	0.038	2.16 (1.03,4.53)	0.043
Male*	1	1	1	1
<b>Self-esteem</b>				
High	1.07 (0.42,2.73)	0.89	0.97 (0.37,2.53)	0.95
Low	0.25 (0.07,0.89)	0.033	0.37 (0.08,1.63)	0.19
Normal*	1	1	1	1
<b>Depression</b>				
No	2.76 (1.02,7.48)	0.047	2.03 (0.62,6.69)	0.25
Yes*	1	1	1	1
<b>PAC</b>				
Good	2.34 (1.09,5.04)	0.03	1.81 (0.81,4.03)	0.15
Poor*	1	1	1	1

\*Reference category

# Conclusions

- Female adolescents are more likely to participate in future HIV vaccine prevention trials compared to males (OR: 3.01, CI: 1.27,7.16)
- Females are more likely to perceive a high parental willingness for their adolescents to participate in future HIV vaccine prevention trials compared to males (OR: 2.16, CI: 1.03,4.53)
- PAC, depression and self-esteem do not seem to influence perceived parental and adolescent willingness to participate in future HIV vaccine prevention trials
- The high proportion of participants willing to participate agrees with a previous study in Soweto (in 2006)

# Recommendation

- Further research is required to understand why females are more willing to participate in future HIV vaccine trials compared to males

# Acknowledgement

- Glenda Gray
- Kathleen Sikkema
- Guy de Bruyn
- Janan Dietrich
- Martin van der Watt
- Ndangano Makongoza
- Mamakiri Khunwane
- Phindile Maesela
- AIDS vaccine conference organisers
- NIMH
- SAAVI