

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

	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?	
	Willing (N=273)	Not willing (N=27)
Median PAC score (overall median 16)	16	15
Median Self esteem score (overall median 22)	22	22
Median depression scores (overall median 9)	9	9
Gender		
Females	166 (61%)	9 (33%)
Males	107 (39%)	18 (67%)
PAC		
Good	126 (46%)	8 (30%)
Poor	147 (54%)	19 (70%)
Self esteem		
High	50 (18%)	6 (22%)
Normal	212 (78%)	20 (74%)
Low	11 (4%)	1 (4%)
Depression		
Yes	20 (7%)	4 (15%)
No	253 (93%)	23 (85%)

	Univariate		Multivariate	
	OR (CI)	<i>p-value</i>	OR (CI)	<i>p-value</i>
Gender Female Male*	3.1 (1.35,7.16) 1	0.008 1	3.01 (1.27,7.16) 1	0.013 1
Self-esteem 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
Depression No Yes*	2.2 (0.69,6.99) 1	0.18 1	3.12 (0.82,11.8) 1	0.1 1
PAC 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)
Median PAC score (overall median 16)	16	13.5
Median Self esteem score (overall median 22)	22	21.5
Median depression scores (overall median 9)	9	9
Gender		
Females	160 (60%)	15 (42%)
Males	106 (40%)	21 (58%)
PAC		
Good	126 (47%)	10 (28%)
Poor	140 (53%)	26 (72%)
Self esteem		
High	51 (19%)	6 (17%)
Normal	207 (78%)	26 (72%)
Low	8 (3%)	4 (11%)
Depression		
Yes	18 (7%)	6 (17%)
No	248 (93%)	30 (83%)

	Univariate		Multivariate	
	OR (CI)	<i>p-value</i>	OR (CI)	<i>p-value</i>
Gender				
Female	2.1 (1.04,4.28)	0.038	2.16 (1.03,4.53)	0.043
Male*	1	1	1	1
Self-esteem				
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
Depression				
No	2.76 (1.02,7.48)	0.047	2.03 (0.62,6.69)	0.25
Yes*	1	1	1	1
PAC				
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

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