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To cite this article: Jenny Chen-Charles, William E Rudgard, Aoife M Doyle, Dr Elona Toska & Professor Lucie Cluver (2022): What do adolescents value most and is this affected by HIV status? Aspirations and self-perceptions from a large cohort study in South Africa, *Psychology, Health & Medicine*, DOI: [10.1080/13548506.2022.2116059](https://doi.org/10.1080/13548506.2022.2116059)

To link to this article: <https://doi.org/10.1080/13548506.2022.2116059>



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Published online: 28 Aug 2022.



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What do adolescents value most and is this affected by HIV status? Aspirations and self-perceptions from a large cohort study in South Africa

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ABSTRACT

Hundreds of millions of adolescents across Africa face challenges in many areas of their lives, including elevated risk of HIV exposure and acquisition. Understanding the aspirations and self-perceptions of adolescents could play an important role in better targeting effective investments to break the cycle of adversity for adolescents and into their adulthood. Aiming to understand what adolescents value most for themselves and their future, we analysed and summarised cross-sectional data on the aspirations and self-perceptions of 1519 adolescents living in South Africa, overall and by HIV status. Outcomes were coded from participant responses to two open-ended questions: 'What job do you want to do when you grow up?' and 'What are you most proud of about yourself?'. Associations with HIV status were then evaluated using multivariable logistic regression adjusting for six sociodemographic factors measured from the same cohort. The sample had a mean age of 14 years, 55% were female, and 70% were living with HIV. The five most common job aspirations were: 'Health and Medical Science Professionals' (28%), 'Law Enforcement and Public Safety Professionals' (14%), 'Social Work Associate Professionals' (12%), 'Legal Professionals' (9%), and 'Education Institutions Teaching Professionals' (6%). The top five themes for what adolescents were most proud of about themselves were 'School performance' (22%), 'Outward appearance' (15%), 'Sports skills' (12%), 'Personality' (11%), and 'Behaviour at home/with elders' (7%). Adjusted analysis showed no evidence that HIV status was associated with important differences in aspirations or self-perceptions. In conclusion, adolescents facing high levels of adversity in South Africa hold high value for their education and aspirations for their futures. Policies and initiatives should focus on meeting these aspirations as vehicles for development, independent of their HIV status. Therefore, more needs to be done to not just help adolescents survive but thrive into adulthood.


ARTICLE HISTORY

Received 22 February 2022
Accepted 09 August 2022

KEYWORDS

Adolescents; HIV; aspirations; self-perceptions; South Africa

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 Supplemental data for this article can be accessed online at <https://doi.org/10.1080/13548506.2022.2116059>

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Introduction

Adolescents in Africa account for 23% of the continent's population and are the fastest growing demographic worldwide (UNDESA, 2017; UNICEF, 2019b). As direct agents of the region's future, adolescents have the potential to champion the Sustainable Development Goals (SDGs). Effective investments today could result in a large demographic dividend (Das Gupta et al., 2014; Sheehan et al., 2017).

However, without appropriate social structure and support, this large, growing adolescent population could lead to huge un- and under-employment issues and facilitate poverty, violence, and political instability (Asafu-Adjaye & Brown, 2021; Barford et al., 2021). Much work is needed as millions of adolescents in the region continue to face acute adversities including the highest global rates of HIV infection, child poverty, school dropout, unplanned fertility, and child marriage (Patton et al., 2016; STOPAIDS, 2016). South Africa, in particular, has the largest HIV epidemic in the world (Mahy et al., 2019) and also has one of the highest unemployment rates in the world (63.9% among adolescents aged 15–24; and 34.5% nationally) (Statistics South Africa, 2022).

Understanding the aspirations and self-perceptions of adolescents could play an important role in better targeting effective investments to break the cycle of adversity for adolescents and into their adulthood. Previous research has shown that having higher levels of purpose and a positive outlook can be a predictor for better future expectations, which in turn is a contributor to better health and mental health outcomes in adolescents (Almroth et al., 2018; Dudovitz et al., 2017; Stoddard & Pierce, 2015). Higher self-esteem was found to be associated with less depression in perinatally infected ALHIV in a study in South Africa (Bhana et al., 2016). Because HIV infection adds significant challenges to adolescence related to stigma and discrimination, disclosure, adherence to antiretroviral therapy and poor mental health (Kaunda-Khangamwa et al., 2020; Kimera, Vindevoel, Reynaert et al., 2020), we also investigate whether aspirations and self-perceptions are affected by HIV status.

Besides studying which socioeconomic conditions may be pivotal for promoting adolescent achievement, policymaking may benefit on two fronts from a deeper understanding of adolescents' aspirations and self-perceptions. First, enhancing aspirations and self-perceptions could help adolescents out of behavioural poverty traps and allow policies aiming to reduce poverty to be more effective (Dalton et al., 2016). Second, better understanding of adolescent self-perceptions and aspirations may help align socioeconomic interventions to adolescent priorities and thus improve their uptake and effectiveness.

Adolescents in South Africa continue to face many challenges in their daily lives, which have largely remained the same over the past two decades (Barnes, 2021; De Lannoy et al., 2018). Aiming to inform future adolescent policy making, particularly programming for adolescents and young people living with HIV, we investigated the aspirations and self-perceptions of 1064 adolescents living with HIV (ALHIV) and 455 age-peers living in the same study site in South Africa (Cluver et al., 2019; Hodes et al., 2020).

Materials and methods

The study uses data collected from the first wave of the Mzantsi Wakho cohort between March 2014 and September 2015. The study was based in the Eastern Cape Province in South Africa, which had the highest poverty rate in South Africa at 59% in 2015 (World

Bank Group, 2018) and 7.9% HIV prevalence amongst 15–24 year-olds in 2017 (Simbayi et al., 2019). There is very little research around aspirations and self-perceptions, especially using direct responses from participants and comparing ALHIV with their uninfected peers, particularly from large scale, community-based cohorts, such as this study (Hodes et al., 2020). Therefore, data from this cohort continue to provide important insights into the lived experiences of adolescents despite its age.

Measures

Outcomes: We focus on adolescents' responses to two open-ended questions embedded within the quantitative Mzantsi Wakho survey (full questionnaires are available at <http://www.mzantsiwakho.org.za>): 'What job do you want to do when you grow up?' and 'What are you most proud of about yourself?' (See supplementary material, for example, responses to questions). The first question is aimed at measuring their aspirations – what they wish they could achieve, rather than their expected jobs. Responses were self-inputted by participants into digital tablets, with trained researcher support if needed. The data were first prepared for quantitative analysis through coding and grouping participant responses into themes. Coding was guided by a 'framework approach' and included five steps: 1) familiarisation; 2) coding answers thematically; 3) indexing and displaying the data; 4) charting or data reduction; and 5) data mapping and interpretation (Ritchie & Spencer, 2012). Responses to the two questions were coded to main themes, with the five top mentioned themes for each question included for quantitative analysis.

HIV status: The Mzantsi Wakho study defined HIV status by whether the participant was ever initiated onto ART (Boyes et al., 2019). HIV-positive status was confirmed through patient files and medical records or evidence-based tools developed to detect suspected cases of HIV (Ferrand et al., 2011; Lowenthal et al., 2011).

Covariates: Sociodemographic variables were also collected and included age, gender, urban/rural location, formal/informal home type, household receipt of any form of social grant, and highest education level achieved.

Analysis

Six socio-demographic covariates were described for the full sample. Prevalence of mentions of aspirations and self-perceptions was also summarised and compared across adolescents not infected with HIV and ALHIV using the Chi-squared test. Logistic regression was used to estimate multivariable associations between our exposure of interest, HIV status, and each of the main salient aspirations and self-perceptions. We identified five salient aspirations and five salient self-perceptions; hence, we ran five regression models adjusting for the six covariates. Fitted models were then used to calculate adjusted probabilities of the prevalence of evaluated aspirations and self-perceptions, overall and amongst adolescents not infected with HIV and ALHIV.

Ethical approval

Ethical approval for the Mzantsi Wakho study was obtained from Research Ethics Committees at the University of Cape Town (CSSR 2013/4; CSSR 2019/01), University

of Oxford (SSD/CUREC2/12-21; R43892/RE003), and Eastern Cape Departments of Basic Education and Health, and participating hospitals.

Results

The sample's mean age was 14.05 (SD 2.91); 55% were female; 70% ALHIV; 26% lived in rural locations; 18% lived in informal housing; 94% of participants' households received a form of social grant; 69% of participants achieved education up to only primary-school level; over 55% of the participants reported delayed grade progression – being at least one grade behind their expected grade-for-age because they failed a grade.

The top five most mentioned occupational sectors were, in order: 'Health and Medical Science Professionals' (28%). 'Law Enforcement and Public Safety Professionals' (14%), 'Social Work Associate Professionals' (12%), 'Legal Professionals' (9%), and 'Education Institutions Teaching Professionals' (6%), as shown in [Figure 1](#). The most prominent themes for what adolescents were most proud of about themselves were 'School performance' (22%), 'Outward appearance' (15%), 'Sports skills' (12%), 'Personality' (11%), and 'Behaviour at home/with elders' (7%), as shown in [Figure 2](#) (see supplementary material for other themes, all mentioned $\leq 6\%$). In multivariable analysis, we found no evidence that the most mentioned job aspirations and self-perceptions differed by HIV status at the 5% significance level using the Chi-squared test ([Table 1](#)).

Occupational sectors were adapted from Statistics South Africa job codes available at: http://www.statssa.gov.za/?page_id=4528

Adjusted for age, gender, rural/urban location, formal/informal home type, whether household receives any social grant, highest level of education achieved.

Adjusted for age, gender, rural/urban location, formal/informal home type, whether household receives any social grant, highest level of education achieved.

Discussion

Participants' responses reveal high job aspirations amongst adolescents despite challenging health or living situations. The theme 'School Performance' was the most common theme mentioned by all participants, regardless of HIV status, indicating how important education is for adolescents. Many of the mentioned occupational sectors require university education, despite over 55% of participants reporting delayed grade progression. However, South African school systems continue to have huge inequalities and chronic underperformances, and unemployment amongst youth is higher than the national average (Amnesty International, 2020; Statistics South Africa, 2022). This is also against a backdrop where South African industries struggle to recruit skilled workers whilst having an excess of unskilled workers (ManpowerGroup, 2018). This study provides a commentary from a large cohort of adolescents to demonstrate this social issue. This analyses, using adolescent voices, highlights the importance of interventions that address long-term chronic unemployment by increasing employment and links to job opportunities.

Findings also show how these voices are consistent across the sub-populations, i.e. ALHIV and their uninfected peers. Even though ALHIV may face tougher challenges in attending school due to their health needs and other barriers (Kimera, Vindevogel, Kintu et al., 2020; Toska et al., 2019), their responses show similar professional aspirations and

Table 1. Total number of mentions for each theme and multivariable adjusted odds ratio for key potential confounders on HIV status for the two open-ended questions.

'What job do you want to do when you grow up?'	Number of mentions (%)	Adjusted Odds Ratio	95% CI	p-value for association
Health and Medical Science Professionals	430 (28)	1.24	0.95–1.61	.11
Law Enforcement and Public Safety Professionals	215 (14)	1.01	0.70–1.46	.95
Social Work Associate Professionals	175 (12)	1.07	0.75–1.54	.70
Legal Professionals	134 (9)	0.92	0.62–1.36	.67
Education Institutions Teaching Professionals	94 (6)	0.98	0.60–1.58	.93
<i>N</i> = 1512				
'What are you most of proud of about yourself?'		Adjusted Odds Ratio	95% CI	p-value for association
School Performance	329 (22)	0.81	0.62–1.06	.13
Outward appearance	230 (15)	1.23	0.88–1.72	.22
Sports skills	185 (12)	0.86	0.60–1.24	.42
Personality	174 (11)	0.86	0.61–1.21	.39
Behaviour at home/with elders	111 (7)	1.03	0.67–1.59	.89
<i>N</i> = 1500				

Adjusted for age, gender, rural/urban location, formal/informal home type, whether household receives any social grant, highest level of education achieved.
 Abbreviations: CI, confidence interval.

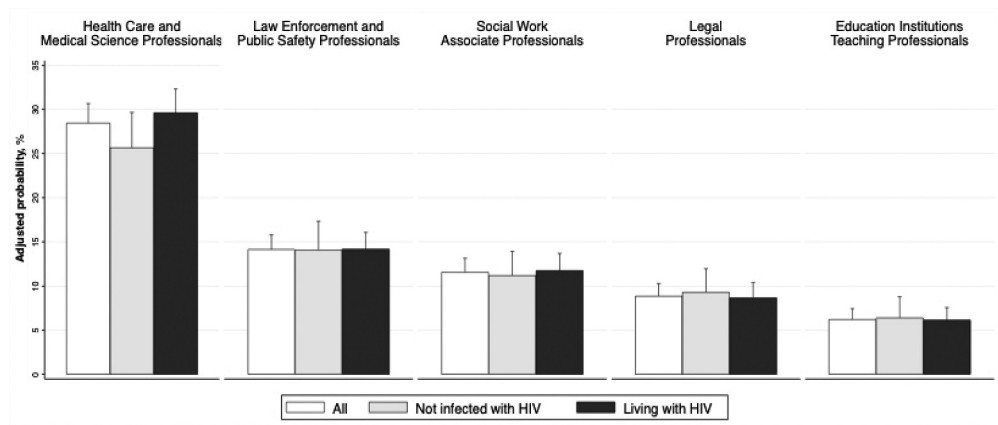


Figure 1. Adjusted probability of themes mentioned for 'What job do you want to do when you grow up?', overall and by HIV status.

value education as highly as their uninfected peers. Evidence suggests that a disconnect between adolescent aspirations for achievement and their lived life trajectory can lead to mental health issues including depression, and in extreme cases suicidal behaviour (Zhang et al., 2013), as well as crime (Fruttero et al., 2021). Narrowing the gap between adolescent aspirations and achievement could improve adolescent mental health outcomes and well-being, which will allow adolescents to thrive and achieve their full potential (Ross et al., 2020). Having high academic and career aspirations could be a marker for better mental health (Almroth et al., 2018; Dudovitz et al., 2017). Better education has lasting impacts on various outcomes including health, social, and

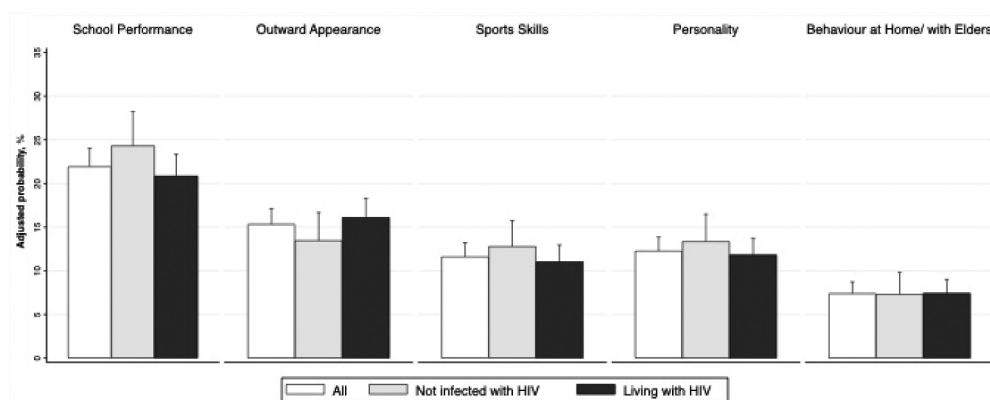


Figure 2. Adjusted probability of themes mentioned for 'What are you most proud of about yourself?', overall and by HIV status.

economic well-being across the life course. It is a key determinant for health and health literacy, and leads to better job prospects, improved living conditions and a successful adulthood (Toska et al., 2019; World Health Organization, 2015).

Limitations in this study include possibility for reporting bias and social desirability bias as data is mainly self-reported. However, efforts were made to minimise possible bias, including engagement and discussion about the context and findings with a qualitative researcher from the Mzantsi Wakho research team. The large sample size also allowed the coding of themes to reach thematic saturation, i.e. where few or no new themes or codes appeared when coding participant responses, which indicates that the identified themes and items are representative (Mason, 2010; Sandelowski, 1995). However, as this study was not an in-depth qualitative research, misclassification of themes could have occurred and respondent validation could not be conducted. Another limitation is that the data is from 2014 to 15, but although it has been a number of years, the same social issues persist within South Africa. Qualitative research from South Africa also suggests that these issues may have been exacerbated by COVID-19 (Gittings et al., 2021).

Future research recommendations include more in-depth interviews with adolescents to better understand the things they value in their lives and the motivations behind their aspirations, and how to integrate aspirations into programming pragmatically. Findings should also be validated amongst a more general sample due to the strong HIV focus of this study. Adolescents also need to be involved more in the process of research and formulating social interventions targeted at them to make them more sustainable and relevant (Larsson et al., 2018). Future policies should focus on helping all adolescents to achieve their high aspirations.

Our findings indicate that interventions should be implemented to help adolescents in low-resource settings to transition from education to employment to better help adolescents to thrive in adulthood (UNICEF, 2019a). There is growing evidence from recent research initiatives that a combination package of services enhances progress towards development outcomes (Cluver et al., 2019; Haag et al., 2022). An example of a package of services could include cash transfers and safe schools as they have been found to positively influence school progression and so should be considered to ensure educational

success for adolescents (Cluver et al., 2019). Career guidance, help with job applications and work experience, vocational and on-the-job training, as well as employment generation should also be considered in programming to address aspirations (Cieslik et al., 2021). Furthermore, the absence of differences by HIV status supports youth-friendly HIV-sensitive programming of these policies. Despite potentially equal aspirations, there still needs to be further focus on how to support ALHIV in education as they experience higher rates of education delay and lower school attendance (Toska et al., 2019).

In conclusion, this study finds that a high proportion of adolescents value their education and have high career aspirations. However, the difficulty in breaking the cycle of adversity could lead to frustrations amongst adolescents and impact their mental health. The fact that HIV status does not influence adolescent aspirations or self-perceptions is also hugely encouraging, as it brings emphasis on how ALHIV have equal and shared aspirations as their uninfected peers. Therefore, more needs to be done to not just help them survive but thrive into adulthood. Interventions to support all adolescents to realise their aspirations can have long-term benefits to their life course and contribute to the demographic dividend and accelerating towards the Sustainable Development Goals.

Acknowledgments

We are grateful for the study participants for sharing their experiences. Thank you to Dr Lesley Gittings who provided insight into the context of the study as the qualitative researcher for Mzantsi Wakho.

Disclosure statement


No potential conflict of interest was reported by the author(s).

Funding

This work was supported by the Claude Leon Foundation [F08 559/C]; Evidence for HIV Prevention in Southern Africa (EHPSA), a UK aid programme managed by Mott MacDonald; Janssen Pharmaceutica N.V., part of the Janssen Pharmaceutical Companies of Johnson & Johnson; the John Fell Fund, University of Oxford [103/757; 161/033]; the Leverhulme Trust [PLP-2014-095]; Nuffield Foundation; Oak Foundation [R46194/AA001] and Oak Foundation/GCRF “Accelerating Violence Prevention in Africa” [OFIL-20-057]; Oxford University Clarendon-Green Templeton College Scholarship; the International AIDS Society through the CIPHER grant [155-Hod; 2018/625-TOS]; the Regional Inter-Agency Task Team for Children Affected by AIDS – Eastern and Southern Africa (RIATT-ESA); UKRI GCRF Accelerating Achievement for Africa’s Adolescents (Accelerate) Hub [ES/S008101/1]; UNICEF Eastern and Southern Africa Office (UNICEF-ESARO); University of Oxford’s ESRC Impact Acceleration Account [1602-KEA-189; K1311-KEA-004].

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Data availability statement

Data are available upon request following correct data access procedures (more information can be found here: <http://www.mzantsiwakho.org.za/publications>). Data are not currently available publicly as the study is ongoing and the dataset has not been fully anonymised.

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