

Siyanai Zhou
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Summary: Second-year PhD student in Public Health at the University of Cape Town, focusing on the application of advanced statistical methods in modelling ART adherence trajectories among adolescents living with HIV. Statistical researcher at the UKRI GCRF Accelerating Achievement for Africa's Adolescents (Accelerate) Hub. Specialises in implementation of data analysis techniques, in particular, application of finite mixture models such as latent class and group-based trajectory models (e.g. applied in a presentation at the European Respiratory Society International Congress) and multilevel models i.e. mixed-effects models (e.g. applied in Paper 1 below). Worked on multiple survey data including multi-country Demographic Health Surveys and censuses. Currently working on matching, linking, merging self-reported data to routine data for adolescents from the National Health Laboratory of South Africa, in order to analyse lifetime trajectories of health and mortality outcomes and related social factors.

Education

- 2021-Present **University of Cape Town** PhD Student in Public Health
Awarded UCT-Centre for Social Science Research scholarship to study PhD in Public Health
Thesis: ART adherence trajectories and correlates of treatment outcomes among adolescents in the South Africa
- 2016-2018 **University of Cape Town** MPhil in Demography
Awarded the Hewlett Foundation Scholarship to study MPhil in Demography
1st prize for an outstanding Master's thesis presentation
- 2010-2014 **Zimbabwe: National University of Science and Technology** BSc (Hons) in Statistics and Operations Research. Thesis (Class 1: Distinction)

Awards

- 2022: International AIDS Society: Biennial Prize for Excellence in HIV research related to Children with Prof. Lucie Cluver.
- 2021-2024: UCT- Centre for Social Science Research scholarship for PhD study
- 2021: UCT Desmond Tutu Scholarship for Adolescent and Youth Healthy Policy Short-Course, LSHTM.
- 2019: Discovery Health Clinical Excellence Award: Best Research Paper at the 9th SA-AIDS Conference
- 2018: 1st Prize, outstanding Master's thesis, Population Association of Southern Africa Conference
- 2016-2018 Hewlett Foundation Scholarship for Master's Degree study

Research Posts

- Jan 2020- to date **University of Cape Town: Statistical Researcher** under the UKRI GCRF Accelerating Achievement for Africa's Adolescents (Accelerate) Hub
- 2018-2019 **University of Cape Town: Quantitative Research Assistant** at the AIDS and Society Research Unit, Centre for Social Science Research (CSSR)

Publications in Peer-Reviewed Journals

- Zhou, S.**, Cluver, L., Shenderovich, Y. and Toska, E., 2021. Uncovering ART adherence inconsistencies: An assessment of sustained adherence among adolescents in South Africa. *Journal of the International AIDS Society*, 24(10), p.e25832.
- Zhou S**, Van Staden Q, Toska E. (2020). Resource reprioritisation amid competing health risks for TB and COVID-19. *Int J Tuberc Lung Dis*. 2020 Nov 1; 24(11):1215-1216. <https://doi:10.5588/ijtld.20.0566> .

3. Toska E, **Zhou S**, Laurenzi CA, Haghghat R, Saal W, Gulaid L, Cluver L. Predictors of secondary HIV transmission risk in a cohort of adolescents living with HIV in South Africa. *AIDS*. 2022 Feb 1;36(2):267-276. <http://doi:10.1097/QAD.0000000000003044>.
4. Edun O, Shenderovich Y, **Zhou S**, Toska E, Okell L, Eaton JW, Cluver L. Predictors and consequences of HIV status disclosure to adolescents living with HIV in Eastern Cape, South Africa: a prospective cohort study. *J Int AIDS Soc*. 2022 May;25(5):e25910. <https://doi:10.1002/jia2.25910>.
5. Cluver LD, Rudgard WE, Toska E, **Zhou S**, Campeau L, et al. (2020) Violence prevention accelerators for children and adolescents in South Africa: A path analysis using two pooled cohorts. *PLOS Medicine* 17(11): e1003383. <https://doi.org/10.1371/journal.pmed.1003383>
6. Cluver LD, Sherr L, Toska E, Zhou S, Mellins CA, Omigbodun O, Li X, Bojo S, Thurman T, Ameyan W, Desmond C, Willis N, Laurenzi C, Nombewu A, Tomlinson M, Myeketsi N; Adolescent Advisory Groups in South Africa, Kenya, Sierra Leone, and Uganda. From surviving to thriving: integrating mental health care into HIV, community, and family services for adolescents living with HIV. *Lancet Child Adolesc Health*. 2022 Aug;6(8):582-592. [https://doi:10.1016/S2352-4642\(22\)00101-8](https://doi:10.1016/S2352-4642(22)00101-8). Epub 2022 Jun 22.
7. Banounin, B. H., Toska, E., Shenderovich, Y., **Zhou, S**. 2021. Sexual practices among adolescents and young people in Eastern Cape, South Africa: the association with HIV status and mode of infection. CSSR Working Paper No. 462. doi: 10.13140/RG.2.2.25866.80326
8. Roberts, K.J., Smith, C., Cluver, L., Toska, E., **Zhou, S**., Boyes, M. and Sherr, L., 2021. Adolescent Motherhood and HIV in South Africa: Examining Prevalence of Common Mental Disorder. *AIDS and Behavior*, pp.1-14.
9. Cluver, L., Shenderovich, Y., Toska, E., Rudgard, W.E., **Zhou, S**., Orkin, M., Haghghat, R., Chetty, A.N., Kuo, C., Armstrong, A. and Sherr, L., (2021). Clinic and care: associations with adolescent ART adherence in a prospective cohort in South Africa. *AIDS*: March 16, 2021 - Volume Publish Ahead of Print - Issue – <https://doi:10.1097/QAD.0000000000002882>
10. Inbarani N, Sinovuyo T, Ronel S, Sean J, **Zhou S**, Goitseone M, Sizulu M, Khangelani Z, Musawenkosi M, Zungu N. Past and current status of adolescents living with HIV in South Africa, 2005-2017. *BMC Res Notes*. 2022 Apr 9;15(1):132. <https://doi:10.1186/s13104-022-06006-2>.
11. Toska, E, Cluver, L, Laurenzi, C, Wittesaele, C, Sherr, L, **Zhou, S**, Langwenya, N. (2020). Reproductive aspirations, contraception use and dual protection among adolescent girls and young women: the effect of motherhood and HIV status. *Journal of the International AIDS Society*, 23. <https://doi.org/10.1002/jia2.25558>
12. Casale, M; Cluver, L; Boyes, M; Toska, E; Gulaid, L; Armstrong, A; Shenderovich, Y; Rudgard, W.E; **Zhou, S**; Langwenya, N; (2020). Bullying and ART non-adherence among South African adolescents living with HIV, *JAIDS*: November 09, 2020-Volume Publish Ahead of Print-Issue – <https://doi:10.1097/QAI.0000000000002574>
13. Steinert JI, Shenderovich Y, Smith M, **Zhou S**, Toska E, Cluver L. Economic wellbeing and associated mediating pathways to improved antiretroviral therapy adherence among adolescents living with HIV: A prospective cohort study in South Africa. *J Acquir Immune Defic Syndr*. 2022 Aug 15. <https://doi:10.1097/QAI.0000000000003071>. Epub ahead of print.

Book Chapter

Zungu N, Naidoo I, Hodes R, North A, Mabaso, M, Skinner D, Gittings L, Sewpaul R, Takatshana S, Jooste S, Moyo S, Ramlagan S, Cloete A, Toska E, and the ALHIV Team. (2020). Being ALHIV: What do we know about adolescents living with HIV in South Africa. The Human Sciences Research Council and University of Cape Town, AIDS and Society Research Unit. Pretoria: Human Sciences Research Council (2) *Adolescents living with HIV in South Africa*. Available from: https://www.researchgate.net/publication/354543506_Adolescents_living_with_HIV_in_South_Africa [accessed Sep 17 2021].

Published Conference Proceedings

1. **Zhou S**, Orkin M, Toska E, Haghghat R, Rudgard W, Van Staden Q, Cluver L. (2021). A data-driven approach to identify putative tuberculosis among adolescents in resource-constrained settings. *European Respiratory Journal* 2021 58: PA2292; DOI: 10.1183/13993003.congress-2021.PA2292
2. Toska, E., Chen, J., **Zhou, S.**, Gittings, L., and Cluver, L. Acceptability of Long-Acting injectable art among adolescents and young people living with HIV in South Africa. International Workshop on HIV & Adolescence. Virtual. 19 November 2020.
3. Toska, E., Sherr, L., Cluver L., and **Zhou, S.** The third generation of HIV: World first longitudinal study of pregnancy in adolescents living with HIV. Late Breaker Oral Presentation. 22nd International AIDS Conference. Amsterdam, the Netherlands. 23-27 July 2018.

Other Conference Presentations

1. **Zhou, S.**, Haghghat, R., Orkin, M., Toska, E., Cluver, L. 2021. “A data-driven approach to identify suspected TB cases among ALHIV in the Eastern Cape Province of South Africa” Poster presentation at the **European Respiratory Society International Congress**, Barcelona, Spain (*Virtual Event*), 01-06 September 2021
2. Toska, E., **Zhou, S.**, Laurenzi, C., Sherr, L., and Cluver, L. Clinic experiences associated with HIV outcomes among young mothers living with HIV. CROI. 6 March 2021. Science Spotlight. (Mini-oral).
3. Toska, E., **Zhou, S.**, Laurenzi, C., and Cluver, L. Adolescent hormonal contraception use and childbearing ideation in the era of HIV – findings from a large community-based study in South Africa. AIDSImpact. London, United Kingdom. 29-31 July 2019. (Oral).
4. Toska, E., Cluver, L., **Zhou, S.**, and Langwenya, N. Supporting adolescents living with HIV survive and thrive. Oral presentation. 9th Southern African AIDS Conference. Durban, South Africa. 11-13 June 2019. (Oral).
5. **Zhou, S.**, Haghghat, R., Orkin, M., Toska, E., Cluver, L. 2019. “TB or not TB: A data-driven approach to identify putative pulmonary TB among adolescents in poor-resource settings” Poster presentation at **9th SA AIDS Conference**, Durban ICC, South Africa, 11-14 June 2019
6. L. Sherr, L. D. Cluver, E. Toska, **S Zhou**, E He (2018) “Differing psychological vulnerabilities among behaviourally and perinatally HIV infected adolescents in South Africa- implications for targeted health service provision” Oral presentation at **9th SA AIDS Conference**, Durban ICC, South Africa, 11-14 June 2019
7. **Zhou, S.** 2017. “Ethnic migration patterns in South Africa: A case of Zimbabwean-born migrants”. MPhil dissertation results: Oral presentation at the **Population Association of Southern Africa (PASA)**, University of Stellenbosch 2018.

Lecturing and Teaching experience

- 2019 **University of Cape Town**, International Academic Programmes Office, 2019
Teaching Assistant, ‘HIV Social Science in South Africa’, led by Dr Rebecca Hodes, (Course for visiting students from the Universities of Massachusetts and Brown).
- Taught and led the course for two (2) weeks including their field trips.
- 2019 **University of Cape Town: Assistant Lecturer and Tutor**, Social Research Methods Department of Sociology
- Taught the Quantitative component of the course which involved introductory statistics and the use of data analysis packages such as Excel and Stata.
 - Designed course materials and graded over 200 exams
 - Involved tutor co-ordination in liaison with lecturers for the Qualitative component of the course

Certificates

- September 2020 **University of Cape Town** Adolescent and Youth Health Policy
August 2019 **The Demographic and Health Surveys Program: USAID-DHS Survey Sampling Training Course**
February 2018 **School of Economics, University of Cape Town: Understanding Panel Survey Data Course**

Software Skills

Statistical Software: Stata (Advanced), R, SPSS and Python (*Intermediate*)

Proficient in using Microsoft Office Suit: Microsoft Word, Excel, and PowerPoint

References

Lucie Cluver, DPhil

Professor of Child and Family Social Work; Department of Social Policy and Intervention, University of Oxford.
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Elona Toska, DPhil

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