Examining the Effect of Individual and Contextual Risk Factors on Violence Use and Experience at Early Adulthood (18-21 years): Secondary Data Analysis using the Context of Violence in Adolescence Cohort Study Data (2014-2023).

[Applicant name redacted]

## Background

Violence against children is a human rights and public health concern affecting an estimated 1 billion children globally [1]. In Uganda, quantitative studies on violence have largely relied on the Uganda Violence Against Children Survey and Uganda Demographic Health Surveys which are nationally representative cross-sectional surveys. Particular to cross-sectional surveys, exploration of violence exposure patterns and their associations with violence experience among individuals overtime remains a challenge [2, 3]. Current evidence from a national survey in Uganda indicates that violence is experienced differently by female and male adolescents with the females experiencing more sexual violence compared to males. The same study indicates schools and homes as common places where violence occurs, thus highlighting the importance of considering home and school contexts in violence prevention [4]. These findings highlight the need to utilize data to generate potential explanations to observed differences in violence victimization. Relatedly, other social factors such as disability also expose adolescents to violence victimization and may compound effect of violence on adolescents health [5]. Similarly, adolescents from households with low socio-economic status are more likely to experience violence and more likely to experience negative impacts of violence exposure [6-8].

Some of the negative consequences of violence among adolescents may include; school drop-out, drug abuse [9, 10], violence permissive attitudes, mental health disorders such as depression and severe mental health consequences like suicide [9-13]. Given the magnitude of violence experienced by adolescents a significant proportion are likely to suffer the negative effects of violence exposure during their adolescence and later during their adulthood. Mental health is particularly important component to consider among adolescents in developing countries since they experience adverse childhood exposures such as exposure to conflict, living with alcohol dependent adults, and child labour that are likely to increase their vulnerability to poor mental health [14-16].

Contexts at home and in school shape both children's experiences of violence and may also affect how children's experiences of violence affect them. Research evidence indicates that children's individual factors and contexts are dynamic and are likely to shape their experiences and impacts of violence [17, 18]. For instance, household structure such as whether single-parent headed or having both parents, witnessing violence between parents, mental health status of a parent, or witnessing violence at home during earlier adolescence are likely to have different effects on the sexual violence or physical violence perpetration or victimization and attitudes regarding use of violence at early adulthood [18]. Similarly, schooling attendance over time is likely to reduce exposure to violence during adolescence and the likely effects of violence during early adulthood [18] and as such schools are promising entry points for violence against children prevention [5].

This study aims to generate evidence to explore changes in violence experiences over waves 1 & 2 and their associations with physical and sexual violence experience and use; and mental health outcomes at early adulthood (wave 3). The researcher shall utilize the Contexts of Violence in Adolescence (COVAC) dataset-a linked longitudinal dataset (11-14 years at wave one; 15-18 years at wave two; 18-21 years at wave three) to address this overall aim.

## Research objectives and questions

**Research objective one: To examine individual risk factors associated with physical and sexual violence experience and use at early adulthood**

1. What individual factors (wave 1) are associated with physical and sexual violence use and experience at late adolescence and early adulthood (wave 3)?

**Research objective two: To determine the associations between violence exposure patterns during adolescence (11-14 years) and experience and use of violence at early adulthood (18-21 years)**

**Specific research questions**

1. Is there a difference in physical and sexual violence experience (wave 3) and use among young adults following different exposure patterns to violence at wave 1 and wave 2?
2. Is the severity of violence experienced during early adolescence associated with physical and sexual violence use and experience at early adulthood?
2. Is the association between violence exposure at early adolescence (wave 1) and early adulthood (wave 3) violence experience and use affected by disability status and sex of the adolescent?
3. Is there an association between type of perpetrator (wave1 & wave2) and experience and use of violence at early adulthood (wave3)?

**Research objective three: To measure the influence of family and school contexts on the effect of childhood exposure to violence at adulthood**

1. How does family/school context affect the association between experience of violence at adolescence and experience (wave1) and use of physical and sexual violence at early adulthood (wave 3)?
2. Are positive family/school contexts protective against negative effects of violence at early adulthood?
3. How does family/school context affect the association between experience of violence at adolescence (wave 1) and mental health outcomes at early adulthood (wave 3)?

**Proposed methods**

Description of dataset: The researcher plans to conduct a secondary data analysis of the COVAC dataset which is comprised of 3,431 adolescents followed over three time points: wave one in 2014, wave two in 2018 and wave three in 2021 [19]. 3,820 adolescents were recruited at wave one and 90% accepted to participate in follow up surveys. COVAC collects data on students' experience of violence from staff, peers, parents and other family members; and data on violence use and norms from caregivers and staff (wave one) and; data on students' experience of violence from staff, peers, parents and other family members; and data on violence use and norms from caregivers, peers, intimate partners and staff at wave two and three [19].

Study variables: Exposure to violence at early adolescence is defined as experience of physical, sexual, emotional violence; severity of violence, faced violence from multiple perpetrators; and experience of normative violence. The primary outcomes are i) use of violence and ii) experience of violence at early adulthood (18-21 years). Use of violence shall comprise of sexual violence and physical violence perpetration on intimate partners or other persons. Experience of violence shall include physical and sexual violence victimization at early adulthood.  Secondary outcomes shall include; depression (Kessler 6 scale) and anxiety (General anxiety disorder-GAD2 scale) and violence permissive attitudes at early adulthood. To explore family and school contexts, we

shall consider whether children are in school or out of school; whether the school has exposure to Good school toolkit/not as aspects of the school context. Family context will be operationalized including: no intimate partner violence, good care-giver mental health, single-headed households, and employment status of head of household.

Longitudinal analyses: Descriptive univariable and bivariate statistical analyses shall be conducted. Multivariable modelling shall be conducted to measure the association between childhood exposure to violence and physical and sexual violence use and experience at early adulthood, adjusting for other factors associated with experience and use of violence at early adulthood. In addition, mediation analysis shall be conducted to assess mediating effect of contexts on the association between childhood exposure to violence and early adulthood physical and sexual violence experience and use. Stratified analysis shall be conducted for exposure and outcome variables to explore whether there are differences by sex, socio-economic status and disability.

## My suitability for the project

This project aligns well with my previous research work and interests. My previous research has focused on large dataset analyses using the [deleted] dataset and analyses of the [deleted] dataset. I worked with [deleted] to estimate psychological distress and factors associated with help seeking among adolescents who experienced violence in Uganda as part of my [programme of study deleted]. As part of [past role deleted], I have written a paper exploring the association between witnessing violence at childhood and perpetration at adulthood.

Through my work with [deleted], I have been able to improve on my skills in research conceptualization, reliability and validity measurement, cognitive testing and measurement of violence against children in schools. I have experience in using Stata statistical analysis software which I use for my daily statistical work. Throughout this project, I have benefited from continued mentorship and support from [deleted]. This particular project exposed me to various violence prevention models and approaches deployed by [deleted]. I have also gained more experience in the conduct of mixed methods experimental studies and how to integrate methods and study findings in reporting.

Within the scope of this PhD project, I hope to acquire advanced skills in longitudinal data analysis such as mediation analysis- a unique technique for measurement of exposure-outcome effect which is particularly important for epidemiological studies. This program shall further broaden my knowledge of social work theories and their application in violence against children research. I am also specifically interested in undertaking this study because it will generate evidence that might be useful in refinement of violence prevention strategies for adolescents and also strengthen advocacy and policy engagement efforts that are currently being undertaken by [organisation deleted]. Overall, I see this research benefiting a broader research and violence prevention community by generating methodological relevant evidence on violence exposures and its effects on young adults.

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