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# The Association of Religious Affiliation and Pyschosocial/Family Dynamics with Selected Risky Behaviors Among At-risk Youth Living in the Slums of Kampala, Uganda: Findings from the Kampala Youth Survey, 2014

Kimberly Franklin

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## Abstract

### **Introduction:**

Youth living in the slums of Kampala, Uganda are at an increased risk for engaging in alcohol use and risky sexual behaviors. Little is known about the association between religious affiliation and risky behaviors in this population. The purpose of this study was to examine the association between religious affiliation, risk factors, and protective factors for engaging in risky behaviors among vulnerable youth living in the slums of Kampala, Uganda.

### **Methods:**

Analyses are based on a cross-sectional study of youth (n=1,143) between the ages of 12 and 18 years of age, living in the slums of Kampala, conducted in 2014. Risky behaviors were defined as binge drinking, inconsistent condom use, and engaging in sexual intercourse with high numbers of sexual partners. Crude and adjusted multinomial logistic regression analyses were conducted to examine factors associated with binge drinking, inconsistent condom use, and high numbers of sexual partners.

### **Results:**

Engaging in binge drinking was associated with ever being homeless (AOR 9.5; 95% CI: 5.74, 15.75) and parental alcohol abuse (AOR 5.55; 95% CI: 3.39, 9.07). Youth identifying as Muslim were less likely to engage in binge drinking (AOR 0.49; 95% CI: 0.24, 0.97). Sexual intercourse with more than five sexual partners was associated with ever being homeless (AOR 6.39; 95% CI: 3.61, 11.31), parental domestic violence (AOR 1.83; 95% CI: 1.03, 3.25), and parental alcohol abuse (AOR 3.16; 95% CI: 1.81, 5.51). Inconsistent condom use was associated with ever being homeless (AOR 2.87; 95% CI 1.88, 4.38) and parental alcohol abuse (AOR 2.66; 95% CI 1.84, 3.82).

### **Discussion:**

The reported prevalence of engaging in risky behaviors among at-risk youth within the slums of Kampala is associated with ever being homeless and parental alcohol abuse. Engaging in binge drinking was less likely among youth identifying as Muslim.

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AMONG AT-RISK YOUTH LIVING IN THE SLUMS OF KAMPALA, UGANDA:  
FINDINGS FROM THE KAMPALA YOUTH SURVEY, 2014.

by

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Of Georgia State University in Partial Fulfillment  
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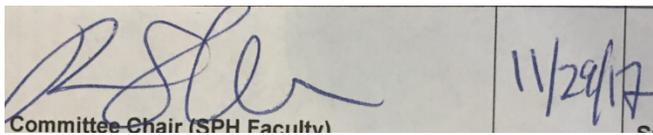
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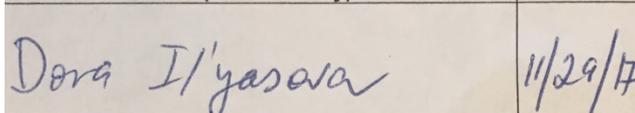
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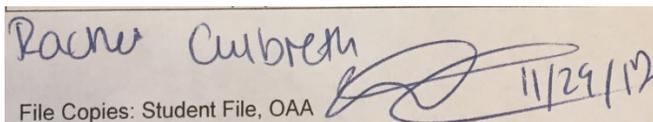
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## **CHAPTER I: Introduction**

### **1.1 Background**

The broad characterization of a vulnerable population implies an “individuals’ freedom and capability to protect one-self from intended or inherent risks is variably abbreviated, from decreased freewill to inability to make informed choices (Shivayogi, 2013).” The defining of vulnerable, or at-risk, populations should take into consideration material, emotional, and social factors that may be important for intervention and research (Skinner, 2006). Some of these factors may include lack of clothing, food and shelter, access to education, emotionally supportive home environment, and a lack of peer support or role models among others. In attempt to understand the factors affecting vulnerable populations of at-risk youth in the slums of Uganda, and to provide information for future interventions and research among this group, we analyzed portions of the 2014 Kampala Youth Survey.

Uganda has previously been reported to have one of the highest alcohol consumption rates in the world (WHO Global Status Report, 2004). Unrecorded or illicit alcohol consumption has been reported to encompass 61.1% of total alcohol production in terms of volume and 24.1% in terms of value (Market Analysis for Illicit Alcohol in Uganda, 2017). A report compiled for a major alcohol manufacturer in Uganda notes the illicit alcohol market continues to grow due to ease of access, high affordability, uncontrolled production and sale, high unemployment, poverty, and the “centrality of illicit production to household income for many families” while also pointing to a lack of

proper government enforcement regarding illicit production and transactions (Market Analysis for Illicit Alcohol in Uganda, 2017).

The population of Uganda is an estimated 34.6 million. An estimated 75% of the population is under the age of 30 years with 48% of the population under the age of 15 years (National Census Main Report, 2014.) The majority of Uganda's population is made up of youth and children making this sector of the population an important one to research in order to gain a better understanding of the factors involved in Uganda's high alcohol consumption rates.

An estimated 1.4 million children and adults in Uganda are living with HIV and HIV prevalence among those over the age of 15 years is estimated to be 1.3 million (UNAIDS, Uganda 2017). In 2016, approximately 52,000 individuals became infected with HIV (UNAIDS, Uganda 2017). Consistent condom use in Uganda continues to be problematic despite the high prevalence of existing and new cases of HIV. The prevalence of HIV among female sex workers is estimated to be 34.2% with condom use at 69.4% (UNAIDS, Uganda 2017). One study among truck drivers and female sex workers in Uganda, found that 97% of female sex workers and 95% of truckers agreed that the proper and consistent use of condoms reduces the risk of HIV infection, suggesting high levels of knowledge regarding HIV prevention through condom use. However, they also found that 18.4% of truck drivers and 6.6% of female sex workers admitted to not liking to use condoms. Some reasons noted for lack of condom use, among clients of female sex workers, include beliefs such as condom use kills the mood for sexual intercourse, condoms have pores through which HIV can pass, and not liking to use condoms. Noted reasons among female sex workers for inconsistent condom use

include male client refusal to use a condom, poverty and increased pay for sex without a condom, and alcohol use before sexual intercourse (Matovu, 2013). By determining if an association between alcohol consumption and religious affiliation or religiosity exists, may provide another path for fighting a significant risk factor for the transmission of HIV among this population (Tumwesigye, 2013).

The poverty rate in Uganda has recently been estimated at 19.7% (poverty report). Characteristics of those living below the poverty line in Uganda include being less likely to have at least two meals per day, less likely to own a mobile phone, more likely to have poor quality housing,, less likely for children to own a pair of shoes, and more likely to have a higher average household size than those living above the poverty line. (National Slum Upgrading Strategy, 2008) An estimated 60% of urban residents reside in slum housing (National Slum Upgrading Strategy, 2008).

## **1.2 Purpose of the study**

The purpose of this study is to examine the association of religious affiliation and psychosocial/family dynamics with selected risky behaviors among at-risk youth living in the slums of Kampala, so that prevention and intervention strategies may be designed and applied.

## **1.3 Research Questions**

We attempt to answer if religious affiliation is associated with engaging in risky behaviors. In addition, we also are interested in the role psychosocial and family dynamics may play in engaging in those risky behaviors. The psychosocial and family

dynamics of specific interest in this examination are ever being homeless, parental alcohol abuse, parental domestic abuse, and childhood abuse. There has not been a significant amount of research on alcohol consumption and religion/religiosity in Uganda (Tumwesigye, 2013). Because little is known regarding the association between religious affiliation and risky behaviors in this population, through this research we hope to provide information that may inform future research or interventions programs.

## **CHAPTER II: Literature Review**

### **2.1 Introduction**

This literature review will focus on the risk domains of alcohol use and risky sexual behaviors in Uganda as well as brief summaries of the literature of at-risk youth in the slums of Uganda and religion in the country. Research regarding these areas are scarce in Uganda and sub-Saharan Africa and while extensive research has been conducted in the US and Europe, it applies less in the context of the economic and cultural situation of Uganda.

### **2.2 Epidemiology of Alcohol in Uganda**

It has been estimated that 9.8% of the adult population living in Uganda has an alcohol-use disorder (Kabwama, 2016). Males in Uganda have a higher prevalence of alcohol consumption than females, with total alcohol consumption (recorded and unrecorded, or illegal/home production) of 25.6 liters per capita, among drinkers only. Females have a consumption prevalence of 19.6 liters per capita, among drinkers only (WHO, 2014). A 2014 analysis of countrywide evaluation of alcohol consumption in Uganda found that 26.8% reported to be current users of alcohol, with 7.9% reporting to consume less than 4 standard drinks for men, two for women, in one sitting. These users were considered low-end users. An additional 6.2% reported drinking 4-6 drinks for men, 2-4 drinks for women, in one sitting and were considered medium-end users. High-end users consumed more than six standard drinks in one sitting for men, four for women, and comprised 12.7% of current alcohol users. (Kabwama, 2016)

Uganda has a minimum alcohol consumption age of 18 years, however the laws often fail to be enforced and penalties for underage alcohol consumption are not cost-restrictive. (Uganda And The New Alcohol Control Bill 2016 - IOGT) Alcohol and drug use among youth populations has been linked to other risky behaviors, such as unsafe sex. (Swahn, 2014) Additionally, there are no legally binding regulations on alcohol advertising or product placement, no legally required health warning labels on alcohol advertisements or containers, and no restrictions on the premises of sale or the density of premises of sale of alcoholic beverages (WHO, 2014).

Alcohol abuse has been associated with poverty, violence, HIV, lack of education, lack of food, clean water and poor sanitation, lost productivity in the workplace, and social and economic inequalities. It should be noted that the term alcohol abuse may encompass problematic or harmful use of alcohol and alcohol dependence (Kerr-Correa, 2007).

The World Health Organization has reported that Uganda has one of the highest estimated rates alcohol consumption in the world (WHO Global Status Report, 2004). However, it should also be noted that acceptable levels of alcohol consumption vary by society and culture (Kerr-Correa, 2007). A significant portion of total alcohol consumption in Uganda is unrecorded or informal alcohol, which is produced outside of a regulatory framework and includes home production (WHO, 2011). Alcohol taxes are generally high on imported alcohol but low or non-existent on locally produced alcohol (Uganda And The New Alcohol Control Bill 2016 - IOGT) which lends to the affordability of illicit, or home-brewed, alcohol.

Illicit alcohol is made from readily available resources including banana, cassava, and millet. As illicit brewing is performed at homes or local collaborations, there is no testing of the brews. Brews may be boosted with marijuana, beer, or in some cases even methanol resulting in blindness or death.

### **2.3 At-Risk Youth in the Slums of Kampala, Uganda**

While the time frame constituting the period of youth may vary from society to society, the general interval of youth is the period between childhood and adulthood and can be considered the phase necessary for personal development. Its experiences are a product of the culture of its society that varies depending on the diversity of roles, social change, and social complexity (Mufune, 2000). Youth is often defined as falling between the ages of 15 and 24 years of age with some countries including 12-year-olds and other including those up to 35 years of age (Youth - Definition | United Nations Educational, Scientific and Cultural Organization). In Uganda, youth is defined to include those between the ages of 18 and 30 years of age (Uganda, Factsheets, Youthpolicy).

While definitions of vulnerability may vary by situation, the National Orphans and Vulnerable Children policy of Uganda lists vulnerable children as those children that bear a significant risk of suffering physical, social, psychological, and emotional harm when compared with other children in an equivalent environment. Under Uganda's National Policy, vulnerable groups include: orphaned and abandoned children, children living in poverty, children with disabilities, child laborers, and street children among others (National Census Main Report, 2014).

An estimated 1.58 to 2.1 million people in Uganda live in housing conditions that meet the criteria of slums (National Slum Upgrading Strategy, 2008). The criteria for this classification is based on durable permanent housing protecting against extreme climate conditions, sufficient living space with less than three people sharing the same room, easy access to safe and affordable water, access to a public or private toilet shared by a reasonable number of people, and secure tenure preventing forced evictions (UN Habitat Uganda Country Program, 2016).

The urban population has been increasing over time from about 1.7 million in 1991 to nearly 7.4 million in 2014 (National Census Main Report, 2014) and an estimated 60% of residents of the capital city of Kampala living in conditions meeting the criteria of a slum.

An increase in the urbanization has been associated with the decline of the extended family unit and affects family structure, educational expectations, and authority systems (Mufune, 2000). With urbanization, the importance of the extended family network in production and socialization has a tendency to decline. Traditional families were extended in the sense of being a support network of relationships extending beyond the nuclear, or immediate, family. The extended family network includes multiple generations of relatives as well as non-blood relationships. By having the support of an extended family network, children and youth can be supported when their natural parents cannot care for them. Additionally, in the traditional family network, children are seen to belong not just to the nuclear family but to the extended family as well. With urbanization, the traditional family network has declined with support coming from the nuclear family only thus leaving children and youth more vulnerable to the effects of

family instability (paragraph Mufune). Other factors that may contribute to youth living on the streets or orphaned include HIV/AIDS and war or regional instability.

Although calculations may be made to estimate the number of vulnerable, or at-risk, children and youth living under these conditions, the dynamic and unpredictable nature of slum and street children and youth makes it difficult to estimate their exact numbers. (Mufune, 2000). The youth living on the streets or slums of Kampala are an especially vulnerable population as they may lack support in the form of family and social networks exposing them to an increased array of risks and have limited access to resources to help ameliorate these increased risks. (Swahn, 2016)

#### **2.4 Epidemiology of Risky Sexual Risk Behaviors**

While a single definition for high risk sexual behaviors is not universally agreed upon, risky sexual behaviors are generally considered those that increase the chances of a negative outcome (Mirzaei, 2016). Negative outcomes may include, but are not limited to, sexually transmitted disease, unwanted pregnancy, family conflict, as well as legal and financial problems (Mirzaei, 2016). Interpersonal, social, and economic factors may contribute to the prevalence of risky sexual behaviors. (Mirzaei, 2016)

Coercion, through violence, threats, deception, cultural expectation or economic disadvantage, is believed to play a significant role in the early initiation of sexual intercourse of women in Uganda, with several studies finding that coercion at first intercourse is associated with subsequent risky sexual behaviors such as multiple partners and inconsistent condom use. (Mmari, 2013) Additionally, economic disadvantage may

lead young vulnerable persons into commercial sex work as a means of obtaining resources such as money, food, and shelter (Swahn, 2015).

The United Nations defines sex work as “the exchange of money or goods for sexual services, either regularly or occasionally, involving female, male, and transgender adults, young people and children where the sex worker may or may not consciously define such activity as income-generating” (HIV/AIDS and Gender: Factsheet Overview). Several studies have shown a price premium among commercial sex workers for unprotected sex.(Elmes 2014, Ntumbanzondo 2006). Additionally, economic disadvantage may increase the willingness of commercial sex workers to engage in unprotected sex (Elmes, 2014). Risk factors noted to be associated with engaging in commercial sex work include being raped, consuming alcohol, child abuse, parental alcohol use, ad lack of schooling. (Swahn, 2016) One study of at-risk youth in the slums of Kampala found that 31.7% of youth reported ever having received money, food, alcohol, or other things in exchange for sexual intercourse. (Swahn, Correlates) Another study among the same population found that nearly half of those engaging in sex work also stated that they were paid in alcohol. (Swahn, 2016)

## **2.5 Religion in Uganda**

The findings of the 2014 Census that Christian Catholics make up the largest single religious denomination, constituting an estimated 39% of the population, Christian Non-Catholics comprise 45%, Muslims constitute an estimated 14% while the Traditional African religion constitutes 0.1%, and Others (those individually comprising less than 0.1 % of the population) constitute an estimated 1.4% of the population. Non-religious

individuals are estimated at 0.2% of the population (National Census Main Report, 2014). Religious tolerance and societal respect for religious freedom is believed to be widespread in Uganda, with a 2009 US State Department International Religious Freedom Report noted “few reports of societal abuses or discrimination based on religious affiliation, belief, or practice.” (Uganda, US Department of State, 2009).

The practice of religion in Uganda may not strictly be dichotomous. Although there is limited data on the topic, the practice of mainstream religion along with traditional religious practices is believed to be common with many creating “their own unique belief systems by blending various elements from these religions (Otiso, 2006).” Mainstream religions are relatively new to Uganda with their introductions brought about with influx of Europeans in the mid-1800s. Since that time, the African Traditional Religions have seen a steady decline as more young persons are schooled in the colonial systems.

Due to the centrality of religious beliefs in Ugandan society, social initiatives most often require the participation and backing of by religious leaders to succeed (Otiso, 2006). Efforts have been made, however, to reduce the role of religion in politics, with President Yoweri Museveni and the National Resistance Movement passing the Political Organizations Act in 2002 restricting the formation of religious political parties. President Museveni’s government has also created a secular constitution attempting to keep politics religiously neutral. (Otiso, 2006) Despite efforts to keep religion out of politics, the role of religion in Ugandan society remains strong and its influence must be appreciated when attempting societal interventions.

## **2.6 Religion and High-Risk Behaviors**

Religious affiliation and adherence to religious principles, or religiosity, when examined in the context of engaging in risky behaviors are likely to produce different results. Previous research has found that individuals who believe religion is important and are active within and devoted to their religion are more likely to delay first intercourse than individuals who consider themselves not religiously devout (Adamczyk, 2012). The extent of which religion may influence an individual's choices depends on the individual's devotion to the principles of their religious affiliations (Odimegwu, 2017).

In addition, some religions and religious sects discourage alcohol consumption. The Islamic faith generally forbids the consumption of alcohol. Christian views on alcohol consumption may vary by denomination with some denominations using alcohol during religious ceremonies, while others prohibit its consumption. However, as most nations are not monotheistic, the levels of religious diversity within a nation may influence the adherence to individual religious principles (Adamczyk, 2012).

In terms of behavioral intervention programs within Uganda, many are faith-based. The Kampala Youth Survey 2014 was conducted in conjunction with Uganda Youth Development Link which is a behavioral intervention program that welcomes all youth, regardless of religion, and therefore presents a unique opportunity to determine if patterns of risky behaviors vary by religion as well as to identify prevention opportunities by factoring in potentially unexpected patterns.

## **2.7 Summary of Literature Review and Gaps**

Although a substantial amount of literature exists around the prevalence and risks factors for HIV and several studies have examined religion and religiosity among adults engaging in risky behaviors, not as much is known regarding what role religion and psychosocial and family dynamics may play of the engaging of risky behaviors among this vulnerable group of youth in the slums of Kampala. By analyzing the Kampala Youth Survey, 2014, this study can provide a unique perspective on the association of religious affiliation and psychosocial/family dynamics with risky behaviors that may provide an enhanced framework for the design of health and behavioral interventions.

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## CHAPTER III: Manuscript

### THE ASSOCIATION OF RELIGIOUS AFFILIATION AND SELECTED RISKY BEHAVIORS AMONG AT-RISK YOUTH LIVING IN THE SLUMS OF KAMPALA, UGANDA: FINDINGS FROM THE KAMPALA YOUTH SURVEY, 2014

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## Abstract

### **Introduction:**

Youth living in the slums of Kampala, Uganda are at an increased risk for engaging in alcohol use and risky sexual behaviors. Little is known about the association between religious affiliation and risky behaviors in this population. The purpose of this study was to examine the association between religious affiliation, risk factors, and protective factors for engaging in risky behaviors among vulnerable youth living in the slums of Kampala, Uganda.

### **Methods:**

Analyses are based on a cross-sectional study of youth (n=1,143) between the ages of 12 and 18 years of age, living in the slums of Kampala, conducted in 2014. Risky behaviors were defined as binge drinking, inconsistent condom use, and engaging in sexual intercourse with high numbers of sexual partners. Crude and adjusted multinomial logistic regression analyses were conducted to examine factors associated with binge drinking, inconsistent condom use, and high numbers of sexual partners.

### **Results:**

Engaging in binge drinking was associated with ever being homeless (AOR 9.5; 95% CI: 5.74, 15.75) and parental alcohol abuse (AOR 5.55; 95% CI: 3.39, 9.07). Youth identifying as Muslim were less likely to engage in binge drinking (AOR 0.49; 95% CI: 0.24, 0.97). Sexual intercourse with more than five sexual partners was associated with ever being homeless (AOR 6.39; 95% CI: 3.61, 11.31), parental domestic violence (AOR 1.83; 95% CI: 1.03, 3.25), and parental alcohol abuse (AOR 3.16; 95% CI: 1.81, 5.51). Inconsistent condom use was associated with ever being homeless (AOR 2.87; 95% CI 1.88, 4.38) and parental alcohol abuse (AOR 2.66; 95% CI 1.84, 3.82).

### **Discussion:**

The reported prevalence of engaging in risky behaviors among at-risk youth within the slums of Kampala is associated with ever being homeless and parental alcohol abuse. Engaging in binge drinking was less likely among youth identifying as Muslim.

## **Introduction**

The examination of high risk behaviors among vulnerable youth is important to inform future health and behavioral interventions which target this population.(Swahn, 2016).

According to the 2014 National Census Main Report, an estimated 1.5 million people live within the second most populous urban area, the capital city of Kampala, with a population density of 7,928 individuals per square kilometer. In addition, 55% of the national population is under the age of 18 years (National Census Main Report, 2014), making children and youth and especially important group when developing interventions targeting high-risk behaviors.

The national Orphans and Vulnerable Children policy of Uganda lists vulnerable children as those children that bear a significant risk of suffering physical, social, psychological, and emotional harm when compared with other children in an equivalent environment. Under national policy, the vulnerable groups include: orphaned and abandoned children, children living in poverty, children with disabilities, child laborers, and street children among others (National Census Main Report, 2014). Vulnerable youth are often exposed to high levels of poverty, family conflict, low parental attachment, substance abuse, and are susceptible to numerous health risks (Swahn, 2015).

In terms of health risks, the prevalence of HIV and other sexually transmitted diseases among youth in the slums of Uganda between the ages of 15 and 19 years of age has been estimated at 37.2% (Swahn, 2012). One study found that 30.6% of youth living in the slums Kampala had thought of attempting suicide in the past year, 24.1% had been raped, 75.1% reported high levels of sadness or hopelessness, 13.8% reported drug use, 32.6% reported previous drunkenness, and 43.5% believed they will die before the age of 30 years. (Swahn, 2012). Another study determined that among girls and young adult women (ages 14 to 24 years)

living in the slums of Kampala, 39.2% had been in a physical fight in the last year, 39% reported both parents dead, 36.3% reported one parent dead, 51.1% reported having to care for themselves at night, 53.7% reported being hungry, and 84.9% reported feeling lonely in the last month (Swahn, 2015).

Previous reports have noted mental and physical health problems, as well as substance abuse, among vulnerable youth to be a significant problem with scarce resources available to assist these individuals (Swahn, 2012). Given the high rates of poverty as well as orphaned youth in the slums of Kampala, more research is needed to better facilitate aid for these vulnerable youth.

The purpose of this study is to examine the association of religious affiliation, gender, age, ever homelessness, exposure to parental domestic violence, child abuse, and excessive parental alcohol use with high-risk behaviors among vulnerable youth in the slums of Kampala, Uganda. In addition, time spent at Uganda Youth Development Link (UYDEL) was analyzed in an attempt to understand the demographics and risk behaviors of those attending aid facilities. UYDEL is an NGO within Kampala, Uganda with the mission of transforming the socioeconomic status of disadvantaged young persons between the ages of 10 and 24 years of age.

This work and the understanding of the risk factors associated with engaging in risky behaviors are important to enhance existing intervention programs. Alcohol use has been associated with commercial sex work (Swahn, 2016), domestic abuse, unemployment, chronic health problems, and unintentional injuries. By examining the factors associated with alcohol use/abuse and other risky behaviors, we hope to fill in the gaps regarding slum youth and provide information that may be used to design behavioral and health interventions among this group.

## **Methods**

### *Data Source*

The Kampala Youth Survey 2014, is a cross-sectional study ( $N=1,143$ ) of youth aged 12-18 years, living in the slums of Kampala, conducted in March and April of 2014. The purpose of the survey was to measure and examine the association of high-risk behaviors, with specific focus on alcohol use and sexual behaviors, and religious affiliation and psychosocial/family dynamics. The sample consisted of urban youth, between the ages of 12 and 18 years, living in the slums or streets of Kampala, Uganda and who were participating in a Uganda Youth Development Link (UYDEL) drop-in center for disadvantaged youth. The participants of the study were recruited, primarily through word of mouth, at six UYDEL drop-in centers and neighborhoods surrounding the centers.

### *Measures*

#### *Independent Variables*

##### *Religion*

Individuals were asked about their religious affiliation. For survey purposes, the responses were categorized as “Christian, Catholic,” “Christian, Other,” “Muslim,” “African Traditional Religion,” and “Other.”

##### *Gender*

For survey purposes, the responses were categorized as “boy” and “girl.”

##### *Age*

Only those individuals between the ages of 12 years and 18 years were included in the survey.

### *Ever Homeless*

Individuals participating in the survey were asked if they had ever lived on the streets with no other place to go. Individuals could answer “yes” or “no.”

### *Time with UYDEL*

Study participants were asked how long they had attended UYDEL programs/activities with responses categorized as “less than one week,” “1-4 weeks,” “1 month to 1 year,” or “1 year or longer.”

### *Domestic Violence*

Participants were asked if they ever saw or heard their parents beating each other with responses categorized as yes or no. Those individuals answering “Yes” were defined as being exposed to domestic violence.

### *Parental Influence*

Participants were defined as having parental alcohol influence if the individual’s response was “yes” to the question of “did your parents/caretakers drink a lot of alcohol when you were growing up?”

### *Child Abuse/Violence*

Participants were asked if their parents ever beat them so hard that they had bruises or marks. Those individuals answering “Yes” were defined as experiencing child abuse

## *Dependent Variables*

### *Binge Drinking*

Participants were asked if they had a drink of alcohol within the past year and how often they have a drink containing alcohol with responses categorized as “monthly or less,” “2-4 times

a month,” “2-3 times a week,” or “4 or more times a week.” The binge drinking variable was collapsed down for purposes of this analysis to a categories of never drinkers, drinks less than 4 times a month, and drinking greater than two times per week which was used to define bring drinking.

#### *Number of Sexual Partners*

Survey participants were asked if they ever had sexual intercourse. Participants were then asked with how many different people they had had sexual intercourse with in their life with responses categorized as “none,” “1-2 partners,” “3-4 partners,” “5-6 partners, ”or “ 6 or more partners. For the purposes of the analysis, the categories were collapsed down to 1-2 partners, 3-4 partners, and 5 or more partners.

#### *Condom Use*

Survey participants were asked if they ever had sexual intercourse. The participants were then asked in the past three months, how often did they and their partner use a condom when having sexual intercourse with responses categorized as “never,” “sometimes,” “most of the time,” “or always.” For the purpose of this analysis, categories were collapsed down to never intercourse, consistent condom use, and inconsistent condom use. Participants reporting no history of sexual intercourse were also included in the analysis.

#### *Statistical Analyses*

All statistical analyses were conducted using SAS 9.3 (SAS Institute, Inc., Cary, NC). Demographic variables between individuals self-reporting alcohol use, condom use, and the number of sexual partners were ascertained. Descriptive statistics were computed, including age, gender, ever being homeless, time spent at UYDEL, parental domestic abuse, parental alcohol

abuse, as well as childhood abuse. Chi-square tests were performed to evaluate differences in covariates examined. Bivariate and multivariate analyses were conducted to examine the risk factors associated with the selected risky behaviors of alcohol use, inconsistent condom use, and number of sexual partners. Risk factors were included based on empirical evidence. Unadjusted and adjusted odds ratios were attained with corresponding 95% confidence intervals.

## **Results**

Youth who reported levels of alcohol consumption that equated to binge drinking (Table 3a) were mostly male (59.3%), were 17 years of age at the time of interview, (SD 1.21), affiliated as Christian, Non-Catholic (41.86%), and reported parental drunkenness (74.27%). Among binge drinkers, 50.58% reported ever having been homeless, while among non-drinkers only 13.33% reported ever having been homeless. Among binge drinkers, 47.09% reported parental inter-partner violence, while only reported at 23.68% among non-drinkers. Among binge drinkers, 48.84% reported having experience child abuse, while only 26.92% of non-drinkers reported child abuse.

Results from the bivariate and multivariable multinomial logistic regression analysis for alcohol use are presented in Table 3e. In the final model for alcohol use, being Muslim was protective for binge drinking (AOR 0.49, 95% CI: 0.24, 0.97). Binge drinking was associated with a positive difference in age (AOR 1.72, 95% CI: 1.45, 2.04), ever being homeless (AOR 9.5, 95% CI 5.74, 15.75), and parental alcohol use/drunkenness (AOR 5.55; 95% CI 3.39, 9.07).

In terms of condom use, youth reporting inconsistent condom use were mostly male (57.62%), were 16.87 years of age at the time of interview (SD 1.31), affiliated as Catholic (38.34%), and reported parental drunkenness (53.48%). Among sexually active participants

reporting inconsistent condom use, 30.72% reported ever having been homeless while among those never having been sexually active, 13.43% reported having been homeless. Among inconsistent condom users, 33.63% reported parental domestic violence, while among those reporting never having intercourse, 24.44% reported domestic violence. In addition, 39.33% of inconsistent condom users reported child abuse, while 27.24% of those never having been sexually active reported child abuse.

Results from the bivariate and multivariable multinomial logistic regression analysis for condom use are presented in Table 3e. In the final model for condom use, being of a religion other than Catholic, Christian Non-Catholic, and Muslim was protective for inconsistent condom use (AOR 0.51, 95% CI 0.27, 0.98). Inconsistent condom use was associated with a positive difference in age (AOR 1.68, 95% CI 1.51, 1.87), ever being homeless (AOR 2.87, 95% CI 1.88, 4.38), 1-4 weeks spent at UYDEL (AOR 1.54, 95% CI 1.02, 2.32), 1 month or longer spent at UYDEL (AOR 1.67, 95% CI 1.12, 2.49), and parental alcohol use/drunkenness (AOR 2.66, 95% CI 1.84, 3.82).

Regarding the number of sexual partners, youth who reported 5 or more sexual partners, were mostly female (59.52%), were 17.33 years of age at the time of interview (SD 0.91), affiliated as Christian, Non-Catholic (41.27%), and reported parental drunkenness (60.32%). Among those reporting five or more sexual partners, 46.03% reported ever having been homeless, while among those reporting never having been sexually active, 13.64% reported homelessness. Also among those reporting 5 or more partners, 45.24% reported domestic violence while among those not sexually active, this was reported at 25.45%. In regards to child abuse, among those reporting 5 or more partners, this was reported at 38.89% while being reported at 13.92% among those not sexually active.

Results from the bivariate and multivariable multinomial logistic regression analysis for number of sexual partners are presented in Table 3f. In the final model for number of sexual partners, having 5 or more sexual partners was associated with a positive difference in age (AOR 6.39, 95% CI 3.61, 11.31), 1 month or longer spent at UYDEL (AOR 1.98, 95% CI 1.08, 3.63) compared to less than one week, parental domestic violence (AOR 1.83, 95% CI 1.03, 3.25), and parental alcohol use/drunkenness (AOR 3.16, 95% CI 1.81, 5.51).

## **Discussion**

In this study of at-risk youth living in the slums of Kampala, the findings show that there are substantial reports of binge drinking, inconsistent condom use, and high numbers of sexual partners among this vulnerable group.

Binge drinking was reported less frequently among those who affiliated as Muslim than among other religious affiliations suggesting the role that religious beliefs play is potentially an important factor for binge drinking reduction efforts. However, approximately 8% (n = 22) of Muslim youth in this study (n = 276) reported binge drinking and 15.6% (n = 43) reported at least some alcohol consumption, despite the commonly held assumption that they do not drink based on their Muslim faith. This finding should be viewed in light of two previously mentioned notions: religious affiliation and religiosity are likely to bring about different results and religious diversity within a nation may affect adherence to religious principles. Several studies have noted a decreased likelihood for alcohol consumption among Muslims, however most studies have taken religiosity in account during analyses. Our study looks at religious affiliation only. However, it is important to stress that affiliation with a religion is not causal for

engagement in risky behaviors and care should be taken to ensure assumptions are not made regarding an individual's religious affiliation.

We also found that engaging in risky behaviors (binge drinking, inconsistent condom use, and elevated numbers of sexual partners) was reported more frequently among those also reporting a history of ever being homeless. This finding was not unexpected as social networks play a key role in determining engagement of high-risk behaviors, including substance abuse and unprotected sex, among homeless youth. (Martino, 2011) Previous studies have also reported that as more time is spent on the streets, the more likely time is to be spent with high-risk peers (Martino).

Parental alcohol abuse/drunkenness was associated with binge drinking behavior. These findings are similar to previous research finding an association between parental and offspring alcohol use. A 2015 study by Haugland found an association between adolescent intoxication and parental heavy episodic drinking and was more common amongst adolescents living in areas with a lower socioeconomic status. These findings suggest that vocational programs and health and behavioral interventions should consider providing social support and counseling for at-risk youth.

An association between time spent at UYDEL and inconsistent condom use was noted. This association is likely due to the nature of work done at UYDEL. Children commercially sexually exploited, as well as victims of trafficking, are one of the groups of disadvantaged youth that UYDEL seeks to help. The mission of UYDEL is to enhance the socio-economic status of disadvantaged youth through evidence-based interventions. Due to the nature of the groups targeted for socioeconomic transformation through self-reliance by this NGO, an association between inconsistent condom use and time spent at this behavioral is not unexpected.

The engagements in these risky behaviors also increased with age, as would be expected, and suggests early interventions are important in health and behavioral intervention strategies.

## **Limitations**

Several limitations should be noted within this study. The data collection process only noted religious affiliation. While this analysis is a first attempt at understanding the association between religion and risky behaviors, future studies that include data on the practice and adherence to principles of affiliated religions may help to gain a better understanding of the impact of religion on the engagement of risky behaviors. The adherence to religion and religious principles may have direct and indirect effects on engaging in risky behaviors. Direct effects of religiosity may include religious orders and prohibitions while indirect effects may include limiting of free time (meetings and prayer time), contributing to self-control (fasting) and self-organization (timely attendance and prayers). (Mojahed, 2014). Future studies should take religiosity into account when analyzing the role of religion in the engagement of risky behaviors.

All variables examined were self-reported, which allows for the possibility of recall bias as well as the possibility of social desirability bias, or the under-reporting of high-risk behaviors. In addition, the questions were read by the interviewers to the study participants in either English or translated to the native language of Luganda. The reading of the questions and recording of participants answers by the interviewers can introduce the possibility of interviewer bias.

Because this dataset used cross sectional design, causal relationships between the variables cannot be determined. In order to gain a better understanding of the causal relationships regarding engaging in high-risk behaviors, the use of a cohort study should be considered for future analyses.

## **Implications and Recommendations**

Regarding engaging in high-risk behaviors, it is important to note that religion and religious affiliation is not causal. Findings of the study should be used for designing health and/or behavioral interventions in the context of facilitating services and aiding youth and vulnerable individuals. The associations of religious affiliation and psychosocial and family dynamics with behaviors deemed risky can have a significant impact on the design of future health interventions.

By understanding religious affiliation and psychosocial and family dynamics, interventions for vulnerable individuals may be better tailored to each individual. As religions differ in the manner in which certain behaviors are viewed, gaining a better understanding of the role played by religious affiliation should be viewed as a tool in which to provide aid and interventions. The findings should not be used to define or persecute a religious group, nor should they be used to attempt religious conversion.

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Table 3a. Demographics among youth in the slums of Kampala, Uganda reporting no previous alcohol consumption, alcohol consumption less than four times a month, and alcohol consumption greater than two times per week.

	Never Drinker N (Col %)	Drinks Less than 4 times a Month N (Col %)	Drinks Greater than 2 times a Week N (Col %)
<b>Religion</b>			
Christian - Catholic	223 (30.93)	79 (45.4)	64 (37.21)
Christian – Other	216 (29.96)	63 (36.21)	72 (41.86)
Muslim	233 (32.32)	21 (12.07)	22 (12.79)
Other	49 (6.8)	11 (6.32)	14 (8.14)
<b>Gender</b>			
Male	407 (56.53)	90 (51.72)	102 (59.3)
Female	313 (43.47)	84 (48.28)	70 (40.7)
<b>Age, M (SD)</b>	M=15.73 SD = 1.89	M= 16.87 SD = 1.34	M= 17.0 SD = 1.21
<b>Ever Homeless</b>			
Yes	96 (13.33)	46 (26.44)	87 (50.58)
No	624 (86.67)	128 (73.56)	85 (49.42)
<b>Time with UYDEL</b>			
< 1 week	320 (55.65)	59 (41.26)	64 (42.67)
1-4 weeks	117 (20.35)	31 (21.68)	41 (27.33)
> 1 month	138 (24)	53 (37.06)	45 (30)
<b>IPV</b>			
Yes	170 (23.68)	59 (33.91)	81 (47.09)
No	548 (76.32)	115 (66.09)	91 (52.91)
<b>Parental Influence</b>			
Yes	171 (23.75)	109 (62.64)	127 (74.27)
No	549 (76.25)	65 (37.36)	44 (25.73)
<b>Child Abuse</b>			
Yes	193 (26.92)	81 (46.55)	84 (48.84)
No	524 (73.08)	93 (53.45)	88 (51.16)

Table 3b. Demographics among youth in the slums of Kampala, Uganda reporting no previous intercourse, consistent condom use, and inconsistent condom use.

	Never Intercourse N (Col %)	Consistent Condom Use N (Col %)	Inconsistent Condom Use N (Col %)
<b>Religion</b>			
Christian Catholic	170 (31.66)	52 (35.86)	171 (38.34)
Christian – Other	166 (30.91)	52 (35.86)	156 (34.98)
Muslim	157 (29.24)	31 (21.38)	98 (21.97)
Other	44 (8.19)	10 (6.9)	21 (4.71)
<b>Gender</b>			
Male	286 (53.36)	90 (62.07)	257 (57.62)
Female	250 (46.64)	55 (37.93)	189 (42.38)
<b>Age</b>	M= 15.24 SD = 1.85	M= 17.26 SD = 1.0	M= 16.87 SD = 1.31
<b>Ever Homeless</b>			
Yes	72 (13.43)	39 (26.9)	137 (30.72)
No	464 (86.57)	106 (73.1)	309 (69.28)
<b>Time with UYDEL</b>			
< 1 week	259 (60.37)	53 (40.15)	152 (41.76)
1-4 weeks	87 (20.28)	27 (20.45)	92 (25.27)
> 1 month	83 (19.35)	52 (39.39)	120 (32.97)
<b>IPV</b>			
Yes	131 (24.44)	44 (30.34)	150 (33.63)
No	405(75.56)	101 (69.66)	296 (66.37)
<b>Parental Influence</b>			
Yes	130 (24.25)	74 (51.03)	238 (53.48)
No	406 (75.75)	71 (48.97)	207 (46.52)
<b>Child Abuse/Violence</b>			
Yes	146 (27.24)	57 (39.31)	175 (39.33)
No	390 (72.76)	88 (60.69)	270 (60.67)

\*Consistent condom use is defined as always uses a condom during intercourse. Inconsistent condom use is defined as sometimes or never uses a condom during intercourse.

Table 3c. Demographics among youth among the slums of Kampala, Uganda reporting no previous intercourse, intercourse with 1-2 partners, intercourse with 3-4 partners, and intercourse with 5 or more partners.

	Never Intercourse N (Col %)	1-2 partners N (Col %)	3-4 partners N (Col %)	5 or more partners N (Col %)
<b>Religion</b>				
Christian - Catholic	176 (31.94)	115 (38.08)	57 (37.75)	45 (35.71)
Christian – Other	168 (30.49)	109 (36.09)	46 (30.46)	52 (41.27)
Muslim	160 (29.04)	73 (24.17)	34 (22.52)	20 (15.87)
Other	47 (8.53)	5 (1.66)	14 (9.27)	9 (7.14)
<b>Gender</b>				
Male	254 (46.18)	114 (37.75)	74 (49.01)	51 (40.48)
Female	296 (53.82)	188 (62.25)	77 (50.99)	75 (59.52)
<b>Age,</b>	M=15.25 SD= 1.85	M=16.75 SD=1.39	M= 17.19 SD= 0.96	M= 17.33 SD= 0.91
<b>Ever Homeless</b>				
No	475 (86.36)	247 (81.79)	92 (60.93)	68 (53.97)
Yes	75 (13.64)	55 (18.21)	59 (39.07)	58 (46.03)
<b>Time with UYDEL</b>				
< 1 week	262 (59.41)	109 (42.58)	55 (43.31)	39 (37.5)
1-4 weeks	94 (21.32)	53 (20.7)	30 (23.62)	31 (29.81)
> 1 month	85 (19.27)	94 (36.72)	42 (33.07)	34 (32.69)
<b>IPV</b>				
Yes	140 (25.45)	66 (21.85)	61 (40.4)	57 (45.24)
No	410 (74.55)	236 (78.15)	90 (59.6)	69 (54.76)
<b>Parental Influence</b>				
Yes	138 (25.09)	126 (41.72)	101 (67.33)	76 (60.32)
No	412 (74.91)	176 (58.28)	49 (32.67)	50 (39.68)
<b>Child Abuse</b>				
Yes	157 (13.92)	93 (30.79)	81 (54.0)	49 (38.89)
No	393 (71.45)	209 (69.21)	69 (46.0)	77(61.11)

Table 3d. Religious Affiliation Stratified by Psychosocial and Family Dynamics

<b>Independent Variables</b>	<b>Christian, Catholic</b> (N, Col %)	<b>Christian, Other</b> (N, Col %)	<b>Muslim</b> (N, Col %)	<b>Other</b> (N, Col %)	Chi-Square (Question at end), df, p-value
<b>Gender</b>					
Female	176 (44.67)	139 (37.07)	149 (51.56)	33 (44)	14.09, <i>df</i> = 3, <i>p</i> = 0.0028
Male	218 (55.33)	236 (62.93)	140 (48.44)	42 (56)	
<b>Age*</b>	M=16.18 SD=1.77	M=16.19 SD=1.80	M=16.1 SD=1.85	M=15.96 SD=1.59	<i>F</i> = 0.47, <i>p</i> =0.7057
<b>Ever Homeless</b>					
No	305 (77.22)	282 (75.2)	234 (81.25)	63 (84)	5.2, <i>df</i> = 3, <i>p</i> = 0.1574
Yes	90 (22.78)	93 (24.8)	54 (18.75)	12 (16)	
<b>Time with UYDEL</b>					
< One Week	164 (50)	151 (49.51)	124 (54.15)	28 (40.58)	14.2, <i>df</i> = 6, <i>p</i> = 0.0274
1-4 Weeks	66 (20.12)	68 (22.3)	47 (20.52)	27 (39.13)	
> One Month	98 (29.88)	86 (28.2)	58 (25.33)	14 (20.29)	
<b>IPV</b>					
No	287 (72.84)	254 (67.73)	229 (79.79)	35 (47.3)	33.69, <i>df</i> = 3, <i>p</i> < 0.0001
Yes	107 (27.16)	121 (32.27)	58 (20.21)	39 (52.7)	
<b>Parental Alcohol Use</b>					
No	201 (51.02)	209 (55.73)	241 (83.97)	38 (50.67)	87.85, <i>df</i> = 3, <i>p</i> < 0.0001
Yes	193 (48.98)	166 (44.27)	46 (16.03)	37 (49.33)	
<b>Child Abuse</b>					
No	266 (67.68)	228 (60.8)	214 (74.56)	41 (55.41)	18.13, <i>df</i> = 3, <i>p</i> = 0.0004
Yes	127 (34.81)	147 (39.2)	73 (25.44)	33 (44.59)	

\*One-Way ANOVA computed for age instead of chi-square statistic

Table 3e. Crude and Adjusted Associations for Binge Drinking and Condom Use among Youth Living in the Slums of Kampala, Uganda (n=1,134)

Independent Variables	Alcohol use				Condom use			
	Unadjusted Odds Ratios		Adjusted Odds Ratios		Unadjusted Odds Ratios		Adjusted Odds Ratios	
	Some Drinking	Frequent Drinking	Some Drinking	Frequent Drinking	Consistent Condom Use	Inconsistent Condom Use	Consistent Condom Use	Inconsistent Condom Use
<b>Religion</b>								
Christian, Catholic	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Christian (Other)	0.82 (0.57, 1.2)	1.16 (0.79, 1.71)	1.01 (0.63, 1.62)	1.34 (0.79, 2.25)	1.02 (0.66, 1.59)	0.934 (0.69, 1.67)	0.92 (0.55, 1.57)	0.87 (0.59, 1.29)
Muslim	<b>0.25 (0.15, 0.43)</b>	<b>0.33 (0.2, 0.55)</b>	<b>0.32 (0.17, 0.61)</b>	<b>0.49 (0.24, 0.97)</b>	0.65 (0.39, 1.06)	<b>0.62 (0.45, 0.86)</b>	0.87 (0.48, 1.59)	0.89 (0.57, 1.38)
Other religion	0.63 (0.31, 1.28)	1.00 (0.52, 1.92)	0.85 (0.39, 1.86)	1.59 (0.73, 3.49)	0.74 (0.35, 1.58)	<b>0.48 (0.27, 0.83)</b>	0.87 (0.37, 2.03)	<b>0.51 (0.27, 0.98)</b>
<b>Gender</b>								
Female	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Male	0.82 (0.59, 1.1)	1.12 (0.8, 1.57)	0.70 (0.45, 1.08)	1.11 (0.69, 1.79)	1.43 (0.98, 2.08)	1.19 (0.92, 1.53)	1.45 (0.9, 2.31)	1.39 (0.98, 1.96)
<b>Age</b>	<b>1.52 (1.35, 1.71)</b>	<b>1.64 (1.45, 1.86)</b>	<b>1.59 (1.37, 1.85)</b>	<b>1.72 (1.45, 2.04)</b>	<b>2.42 (2.04, 2.88)</b>	<b>1.84 (1.68, 2.02)</b>	<b>2.25 (1.86, 2.7)</b>	<b>1.68 (1.51, 1.87)</b>
<b>Ever homeless</b>								
Yes	<b>2.34 (1.57, 3.48)</b>	<b>6.65 (4.6, 9.61)</b>	<b>3.28 (1.96, 5.5)</b>	<b>9.5 (5.74, 15.75)</b>	<b>2.37 (1.52, 3.69)</b>	<b>2.86 (2.08, 3.93)</b>	<b>2.65 (1.54, 4.57)</b>	<b>2.87 (1.88, 4.38)</b>
No	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
<b>Time with UYDEL</b>								
Less than one week	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1-4 weeks	1.44 (0.87, 2.33)	<b>1.75 (1.12, 2.74)</b>	1.17 (0.68, 2.03)	1.28 (0.73, 2.25)	1.52 (0.90, 2.56)	<b>1.80 (1.26, 2.57)</b>	1.27 (0.71, 2.27)	<b>1.54 (1.02, 2.32)</b>
1 month or longer	<b>2.08 (1.37, 3.17)</b>	<b>1.63 (1.06, 2.51)</b>	<b>1.67 (1.03, 2.73)</b>	1.32 (0.77, 2.25)	<b>3.06 (1.94, 4.83)</b>	<b>2.46 (1.75, 3.48)</b>	<b>2.05 (1.23, 3.42)</b>	<b>1.67 (1.12, 2.49)</b>
<b>Parental IPV</b>								
Yes	<b>1.65 (1.16, 2.37)</b>	<b>2.87 (2.03, 4.05)</b>	0.97 (0.59, 1.58)	2.56 (0.94, 2.59)	1.35 (0.90, 2.07)	<b>1.57 (1.19, 2.07)</b>	0.99 (0.58, 1.68)	0.93 (0.62, 1.39)
No	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
<b>Parental Alcohol Use</b>								
Yes	<b>5.38 (3.79, 7.65)</b>	<b>9.26 (6.31, 13.6)</b>	<b>3.30 (2.12, 5.12)</b>	<b>5.55 (3.39, 9.07)</b>	<b>3.26 (2.22, 4.76)</b>	<b>3.59 (2.74, 4.71)</b>	<b>2.29 (1.41, 3.72)</b>	<b>2.66 (1.84, 3.82)</b>
No	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
<b>Childhood Abuse</b>								
Yes	<b>2.37 (1.68, 3.32)</b>	<b>2.59 (1.84, 3.65)</b>	<b>1.96 (1.24, 3.08)</b>	1.5 (0.92, 2.45)	<b>1.73 (1.18, 2.54)</b>	<b>1.73 (1.32, 2.27)</b>	1.25 (0.76, 2.06)	1.28 (0.87, 1.87)
No	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

\*The referent group for alcohol use was no previous alcohol consumption. The referent group for condom use was no previous sexual intercourse.

Table 3f. Bivariate and Multivariable Multinomial Logistic Regression Results for Number of Sexual Partners among Youth Living in the Slums of Kampala, Uganda (n=1,134)

Independent Variables	Unadjusted Odds Ratios			Adjusted Odds Ratios		
	1-2 Partners	3-4 Partners	5 or more Partners	1-2 Partners	3-4 Partners	5 or more Partners
<b>Religion</b>						
Christian, Catholic	1.00	1.00	1.00	1.00	1.00	1.00
Christian (Other)	0.99 (0.71, 1.39)	0.85 (0.54, 1.32)	1.21 (0.77, 1.90)	0.99 (0.66, 1.48)	0.75 (0.42, 1.32)	1.31 (0.73, 2.36)
Muslim	0.70 (0.49, 1.00)	0.66 (0.41, 1.06)	0.49 (0.28, 0.86)	0.86 (0.55, 1.35)	1.15 (0.61, 2.19)	0.75 (0.35, 1.6)
Other religion	<b>0.16 (0.06, 0.42)</b>	0.92 (0.47, 1.79)	0.75 (0.34, 1.64)	0.15 (0.05, 0.44)	1.44 (0.65, 3.2)	1.22 (0.48, 3.09)
<b>Gender</b>						
Female	1.00	1.00	1.00	1.00	1.00	1.00
Male	1.42 (1.06, 1.89)	0.89 (0.62, 1.28)	1.26 (0.85, 1.87)	1.31 (0.91, 1.89)	1.28 (0.79, 2.09)	1.53 (0.9, 2.61)
<b>Age</b>	<b>1.73 (1.57, 1.92)</b>	<b>2.31 (1.96, 2.72)</b>	<b>2.64 (2.17, 3.21)</b>	<b>1.63 (1.46, 1.82)</b>	<b>2.15 (1.78, 2.6)</b>	<b>2.79 (2.19, 3.55)</b>
<b>Ever homeless</b>						
Yes	1.41 (0.96, 2.06)	<b>4.06 (2.70, 6.11)</b>	<b>5.40 (3.53, 8.28)</b>	1.47 (0.90, 2.38)	<b>5.36 (3.13, 9.16)</b>	<b>6.39 (3.61, 11.31)</b>
No	1.00	1.00	1.00	1.00	1.00	1.00
<b>Time with UYDEL</b>						
Less than one week	1.00	1.00	1.00	1.00	1.00	1.00
1-4 weeks	1.36 (0.91, 2.03)	1.52 (0.92, 2.52)	<b>2.22 (1.31, 3.75)</b>	1.27 (0.81, 1.98)	1.12 (0.62, 2.03)	1.85 (0.99, 3.45)
1 month or longer	<b>2.66 (1.84, 3.84)</b>	<b>2.35 (1.47, 3.77)</b>	<b>2.69 (1.60, 4.52)</b>	<b>1.85 (1.23, 2.8)</b>	1.58 (0.91, 2.75)	<b>1.98 (1.08, 3.63)</b>
<b>IPV</b>						
Yes	0.82 (0.59, 1.14)	<b>1.99 (1.36, 2.9)</b>	<b>2.42 (1.62, 3.61)</b>	0.63 (0.4, 0.99)	0.93 (0.54, 1.6)	<b>1.83 (1.03, 3.25)</b>
No	1.00	1.00	1.00	1.00	1.00	1.00
<b>Parental Alcohol Use</b>						
Yes	<b>2.14 (1.59, 2.88)</b>	<b>6.15 (4.16, 9.11)</b>	<b>4.54 (3.03, 6.81)</b>	<b>1.94 (1.31, 2.87)</b>	<b>4.04 (2.4, 6.8)</b>	<b>3.16 (1.81, 5.51)</b>
No	1.00	1.00	1.00	1.00	1.00	1.00
<b>Childhood Abuse</b>						
Yes	1.11 (0.82, 1.51)	<b>2.94 (2.03, 4.26)</b>	<b>1.59 (1.06, 2.38)</b>	1.01 (0.67, 1.52)	<b>2.08 (1.25, 3.47)</b>	0.75 (0.42, 1.34)
No	1.00	1.00	1.00	1.00	1.00	1.00

\*The referent group for the multinomial analysis was no sexual partners.