

Stress, Depression and Substance Abuse among Adolescents living in Kawempe Division

Namatovu Phiona

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**Declaration**

I **Namatovu Phiona**, declare to the best of my knowledge that this dissertation is true and has never been submitted for any award or degree to any University or any other institution.

Signature: Buiw.....

Date: 22<sup>nd</sup> / NOVEMBER / 2022.....

**Approval**

I certify that this Dissertation titled “Stress, Depression and Substance Abuse among Adolescents living in Kawempe Division” has been submitted with my approval as the University Supervisor in Partial Fulfillment of the Degree of Bachelor of Community Psychology at Makerere University.

Signature: .....  
Date: .....  
Dr. Nyende Paul

## **Dedication**

I dedicate my research proposal work to my family and many friends. A special feeling of gratitude to my loving parents. My close friends Namuli Tracy and Namatovu Madrine whose words of encouragement and push for tenacity ring in my ears. My lovely sisters and brother have never left my side and are very special

I also dedicate this research proposal to my many friends and church family who have supported me throughout my education. I will always appreciate all they have done.

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## **Abstract**

This study entitled Stress, depression and substance abuse among adolescents in Kawempe division was done basing on the background that there is an increase in the cases of substance abuse that have been recorded of recent years. The research adopted a correlational study design to establish the relationship between stress, depression and substance abuse among adolescents in Kawempe division. A total of 150 respondents were purposely selected to participate in the study since the method was appropriate as the researcher used her own judgment to select the respondents. Data collection was done using self-administered questionnaires and was analyzed using the statistical package for social sciences (SPSS). Pearson's Correlation Coefficient ( $r$ ) was then applied to determine the level of the hypothesis.

## Chapter one

### Background

The prevalence of substance abuse among adolescence continues to be a public health concern (Johnston. et al, 2005). Adolescence, which is the period between the onset of puberty and the assumption of adult roles, is a time of particular vulnerability to substance use and its consequences for a variety of developmental reasons, some specific to the individual and others related to the biological and behavioral changes produced by adolescence itself (Johnston, et al., 2005). Substance initiation among early youths is particularly concerning given that this is when incidence rates begin to increase with early initiation predicting escalation in use and problematic use in later life (Pitkanen, Lyyra & Pulkkinen, 2005).

In Uganda there are increasing cases of substance abuse that have been recorded of recent and the prevalence of this act has shot up incidences related to depression and stress as the abusers strive so hard to get away to from addiction and theses stand at high rates. For instance in a survey carried out in 2010 the consumption of marijuana increased from 11.4% to 13.5% in a period of eight months, and the number for that particular time stood at 243 cases which increased to 475 after eight months, sniffing of fuel was also one of the drug abuse act that police more associated with young men and women although the numbers are not quite threatening as such but it recorded 0.8% which later on increased to 4.8% and alcohol related abuse is also observed among the young men and women and this was on the rampant increase because increased numbers of young men and women where associated with alcohol consumptions (Ministry of Health (MOH), 2010).

Spear (2003) argues that adolescence often is characterized as an emotionally stormy period. Spear (2003) notes that though most children navigate this transitional period without serious problems, about one-third to one-half of youths report significant depressed mood or affective disturbances that could be described as -inner turmoil or -feeling miserable. Research shows that stress-induced increases in stress hormones may interact with mesocorticolimbic brain regions to facilitate substance use behavior; hence stress influences substance abuse among adolescents. Emerging studies on the other hand have found a significant negative relationship between stress and self-esteem among youths (Dixon & Kurpius, 2008).

A survey of New York city residents in the wake of the September 11, 2001, terrorist attacks found high levels of both depression and posttraumatic distress disorder (PTSD) among respondents and documented an increase in substance abuse (Neria, DiGrande & Adams, 2011). The survey, conducted by DINA-funded researchers Dr. David Vlahov and his colleagues at the New York Academy of medicine 5 and 8 weeks after the terrorist attacks, qualifies the relationships among stress, depression and substance abuse. Stress has long been recognized as one of the most powerful triggers for drug craving and relapse to drug use (Neria, et al., 2011). Research has shown that survivors of disasters are prone to stress related problems such as PTSD and depression. People who experience major trauma and those with PTSD or depression may self-medicate with substance to relax, cope with stress or relieve symptom.

## **Statement of the Problem**

Substance abuse among youths is a serious public health concern in Uganda. This was seen from the many accidental injuries and health problems in youths as well as the high rates of sexual assault, interpersonal conflicts, and academic problems. The problem had however been associated with high levels of stress and depression which make teens to develop feelings of worthlessness and inadequacy as result of stress substance abuse, depression among others. Nevertheless, less attention has been given to the prevalence, risk and protective factors, and consequences of early alcohol use in the country. However, it is very important to understand stress and depression that affect the acceptance of various immoral activities such as adolescent moral behavior and substance abuse. Depressed youths feel sad, less interested in the activities they once enjoyed, and become more enthusiastic about substance abuse. Hence this study seeks to investigate the relationship between stress, depression and substance abuse among youths

## **Purpose of the Study**

The study aimed at investigating the relationship between stress, depression and substance abuse among youths.

## **Objectives of the Study**

The study was guided by the following objectives;

1. To find out whether there is a significant relationship between stress and depression among youths
2. To establish a significant relationship between depression and substance abuse among a youths

3. To find out the whether there is a significant relationship between stress and substance abuse among youths.

### **Scope of the Study**

The study will be conducted among youths of **Kawempe Youths Development Association (KYDA)** which is located in Kawempe Division in Kampala City, Uganda's capital. This was because the school has an extensive number of urban youths who could provide the necessary data for examining the relationship between stress, depression and substance abuse among adolescents.

The study focused on examining the relationship between stress, depression and substance abuse among adolescents.

### **Operational Definitions**

Stress referred to the environmental circumstances or conditions that threaten, challenge, exceed, or harm the psychological or biological capacities of an individual (McMahon, Grant, Compass, Thurm&Ey, 2003).

Depression referred to the mood disorder that causes a persistent feeling of sadness and loss of interest (Mayo Clinic Staff, 2015).

Substance abuse referred to the dependence on anything that is ingested to produce a high, alter one's senses, or otherwise affect functioning (Whetten, Reif, Napravnik, Swartz, Thielman, ron, Lowe & Soto 2005).

### **Significance of the Study**

The study findings may or will be used by counseling psychologists employed in teenage rehabilitation centers as it may provide an in-depth knowledge about the relationship between stress, depression and substance abuse among youths

The study findings may also provide facts that may serve as reference to organizations involved in handling youths with an aim of rehabilitating them especially when they are received on grounds of substance abuse.

The study findings may contain background information and more knowledge on the relationship between relationship between stress, depression and substance abuse among youths thus serving as reference material to all researchers interested in studying the same topics.

The study will father help containing background information and best practices that can be used by the governments to cub the increasing mental problems among youths in Uganda due to stress, substance abuse and depression.

### **Conceptual framework**

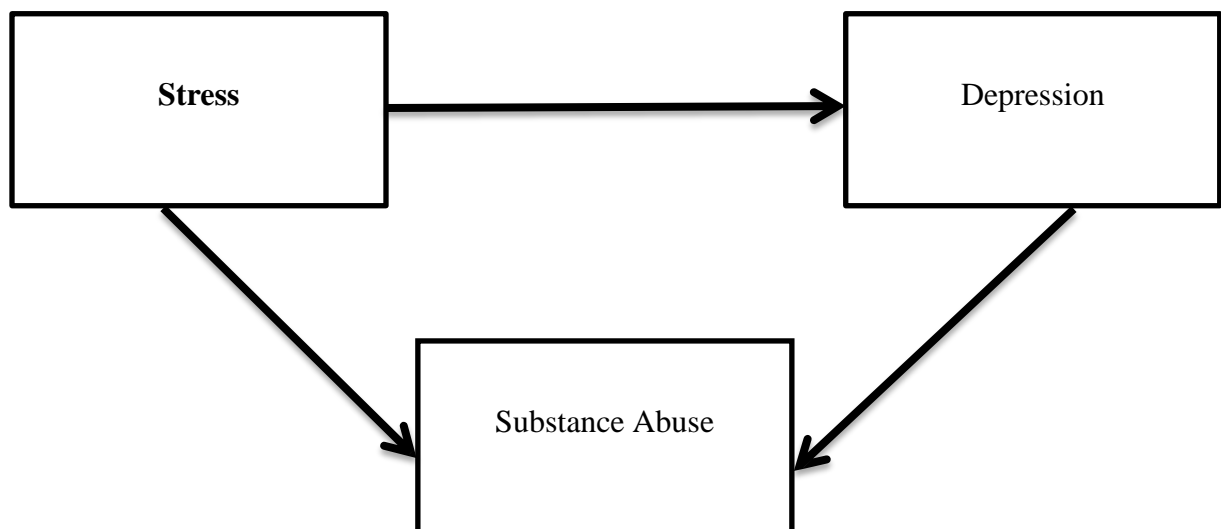




Figure 1: *A conceptual framework of the study showing the relationship between stress, depression and substance abuse.*

The conceptual frame work shows the relationship between stress, depression and substance abuse. According to the conceptual frame work, stress is related to depression and substance abuse. Stress is one of the leading factors of substance among the youth. However, it is very important to understand stress and depression which affects youth moral behavior and adoption to different immoral activities such as substance abuse. Youths who are depressed feel sad, less of interest in activities once enjoyed and these will make them to resort to substance abuse. It can lead to variety of emotional and physical problems and decrease a person's ability to function at work and home. Stress can be both negative and positive.

Stress is good when the situation offers an opportunity to a person to gain something, it may act as motivator for peak performance, and stress is negative when s person faces social, physical organizational and emotional problems. There are major consequences to this involvement in the drug culture. Juvenile drug arrests are more than tripled in many of the nation's largest cities. There also been an alarming escalation in violent and homicidal episodes, which are clearly driven by the proliferation of drug abuse in the inner city. These increases in adolescent drug arrests and violence indirectly indicate that the number of urban young people who are being inducted into drug use is increasing. Many of the clients of the youths crack dealers are themselves minor as we shall see in chapter two.

## **Chapter Two**

### **Literature Review**

#### **Introduction**

This chapter contains the review of literature on what other researchers have so far written about the study variables and their relationships. It also entails the study hypothesis.

#### **Stress and Depression**

Within the past 20 years, depression research has considered the possibility of complex and reciprocal relations between stress and depression (i.e. stress exposure model of depression), but depression, depress genic vulnerabilities, in turn, also increase susceptibility to stressful events that are at least in part influenced by the individual (i.e. stress generation, Hamman (2006). It is also recurrent with each episode increasing risk of subsequent one, Kessler (2002). Current estimates of the recurrence of depression suggest that 50 to 60% of individuals who experience a second one, with 70 to 80% of these eventually experience a third episode going on to experience a fourth one (American Psychiatric Association (2000), Burcusa and Lacono (2007), Monroe and Hardness (2005). Fully elucidating relation between stress and depression is critical to advancing our understanding of the process involving in the etiology and often chronic course.

The early perspectives on stress and depression suggest that stressful life events are associated with the risk of depression is a well-established finding in the research literature Hammen (2005). The relation between stress and risk of depression has been documented for episodic or acute, stresses. Kendler (1998). Also the tacit assumption that the relation between the two is unidirectional specifically, in what has been termed as stress exposure model of depression. It is implied that stressful life events significantly increase individual's susceptibility

to this disorder, initial conceptualizations of this model also held that individuals are largely passive recipients of environmental stressors, having little, if any significant role in the shaping of events within their lives relevant to the development of depression, thus early research gave primary to independent relative to dependent events. Independent or fateful, life events are those whose occurrence is outside the individual's control (e.g. death of a friend or relative), whereas dependent life events are those occurrences influenced by characteristics of the individual (e.g. getting into an argument). Several mediational models. Beevers, Wells, and McGeary (2014) elaborating on this basic relation between stress and depression has received empirical support, including cognitive diathesis stress models, Levinson (2015).

There is also the stress generation model of depression, Hammen (1991) was the first clearly to formulate and test the stress generation model of depression. According to the stress generation perspective, depression-prone individuals are not simply passive respondents to stressful events in their lives, but active agents in the creation of depression-generating life stressors. That individuals vulnerable to depression events, are in some measure, influenced by maladaptive characteristics (e.g. cognitive styles, traits, attachment styles, values and expectations) and behaviour of the individual, Hammen (2010). Hammen and colleagues developed an interview-based chronic stress profile covering domains such as intimate relationship, close friendships, family relations, finances, and the health of self and family members in the past six months. They found, for example, that chronic stress predicted increased depression in patients (Hammen et al. 1992) and depression in youth as risk for depression (Hammen et al. 2004). Mazure (1998) advocates systematic assessment of chronic stress over multiple domains, reasoning that omission of any important domain likely underestimates the true effects of the stress-depression association.

Lack of inclusion of chronic stress assessment has precluded answering several important questions. One is whether chronic stress predicts chronic depression. A review of limited literature by Riso et al. (2002) suggests such a pattern (Hayden & Klein 2001). Although Kessler (1997) has noted that the indeterminate nature of timing chronic stress and depression makes it difficult to evaluate the causal direction of the relationship. Another question concerns the possible functional relationships between chronic and episode stress in precipitating depressive episodes, it has been hypothesized that chronic stress exacerbate the effects of acute stressors on depression e.g. especially through a process of events, such that chronic matching ongoing conditions, (Brown & harris1997), or that life events magnify the depression consequences of chronic strain. Interestingly, McGonagle and Kessler (1990) found a negative interaction between chronic and episodic events, such that chronic stress reduced the impact of acute stress on depressive symptoms in a large community sample. Cairney et al. (2003) found similar results in the study.

### **Depression and Substance Abuse**

Depression is a common mental disorder that presents with depressed mood, loss of interest or pleasure, decreased energy, feelings of guilt or low self-worth, disturbed sleep or appetite, and poor concentration (World Health Organisation [WHO], 2012). Depressive symptoms in PLWHA are associated with poor adherence to medical appointments and antiretroviral therapy (ART) (Gonzalez, Batchelder, Psaros & Safren, 2011), along with adverse medical outcomes including higher risk for comorbid disorders, faster progression from HIV to AIDS, and higher mortality from both AIDS-related and non-AIDS-related causes.

Substance abuse is a pervasive facet of our society and there is an increasing number of youth involved in this aspect of our civilization with an increased potential to lead to addiction

(Bonomo & Bowes, 2001). In fact historically we have never had a completely abstinent society (Metzler, 1996) with numerous cultures utilizing a variety of psychotropic substances such as tobacco, alcohol, cannabis, opiates and other mind altering substances (Anderson 1995).

In the study conducted by the University of Southern California researchers, Pang, Farrahi, Glaziera, Sussman and Leventhal (2014) used an assessment of 476 teenagers to explore the connection between adolescent depression and adolescent substance abuse. Specifically, the researchers examined the impact of the rash and reckless reaction to stressful situations that characterizes negative urgency. All of the study participants self-reported their level of involvement in drug, alcohol and tobacco use, as well as their experiences with symptoms of depression and their typical reactions to stressful situations.

One longitudinal study of female high school students found that adolescents with depression were more likely to abuse substances (18.2%) than female students without depression (6.3%), even after a 4-year follow-up. The presence of substance abuse more than doubled the likelihood of developing a major depressive episode within 3 years after high school (Rao, Daley & Hammen, 2000). Audrain-McGovern, Rodriguez, Rodgers, Cuevas, Sass and Riley (2012) argued that among adolescent samples, there is evidence that higher level of depressive symptoms associate with an increase in smoking uptake and progression. Similarly, Tang and Orwin (2009) reported that that higher level of depressive symptoms is associated with an increased risk for early life initiation of alcohol or illicit drug use.

Rao, Ryan, Birmaher, Dahl, Rao and Williamson (1999) found that adolescents with depression were more likely to develop substance abuse problems at an earlier age than non depressed youths (1.5 years vs. 3.3 years)

## **Stress and Substance Abuse**

According to the self-medication hypothesis of substance abuse, people develop substance abuse problems in an attempt to manage distress associated with the effects of trauma exposure and traumatic stress symptoms (The National Child Traumatic Stress Network, [NCTSN], 2008). This theory suggests that youth turn to alcohol and other drugs to manage the intense flood of emotions and traumatic reminders associated with traumatic stress or PTSD, or to numb themselves from the experience of any intense emotion, whether positive or negative (NCTSN, 2008). Clinical and naturalistic studies have assessed the influence of both acute and chronic stress on drinking behavior and the development of alcoholism; and although some researchers have found stronger relationships between stressful conditions and alcohol consumption among adolescents, the opposite has also been reported (Begona, Hans, Dike, Henk& Johan, 2000).  
Stressors.

In a study conducted by Liu, Keyes and Li (2014) on the impact of work stress and alcohol consumption among adolescents with the moderation by family and peer influences. Results showed that any work stress was positively associated with alcohol use over the past 12 months (odds ratio = 1.12, 95% confidence interval (CI) 1.02-1.23). More so, stratified analysis found that peer influence significantly moderated the relationship between work stress and alcohol use over the lifetime and past 12 months. The authors concluded that problematic drinking patterns were more apparent among high school students who experienced stress at work.

It also mentioned that those believe that it is an effective way to deal with stress may be at risk of facing alcohol problems (Windle&Windle, 1996). Stress relayed to coping skills can affect the use of alcohol in these individuals and has been studied. A study, which included nine hundred participants that were all seventh and eighth grade students, contributed information to the issue. Behavior and intention-based methods were used to assess coping strategies in relation to use for these individuals. The study indicated stress was positively related to substance use (Wills, Sandy, Yaeger, Cleary, & Shinar, 2001).

Numerous epidemiological studies have found that, for many adolescents (45%– 66%), substance use disorders precede the onset of trauma exposure (Peake, Epstein & Medeiros, 2000) Studies have shown a direct link between alcohol use and engagement in risky behaviors in which adolescents may get hurt (Miller &Rollnick, 2002) such as hitchhiking, walking in unsafe neighborhoods, and driving after using alcohol or drugs. According to the most recent National Survey on Drug Use and Health, more than 20% of underage drinkers are binge or heavy drinkers, and approximately 25%—one in five—report driving while under the influence during the past year. Not surprisingly, adolescents with substance abuse disorders are also significantly more likely than their non-substance abusing peers to experience traumas that result from risky behaviors, including harm to themselves or witnessing harm to others (Peake, Epstein & Medeiros, 2000).

Other research studies supported the concept of the tension-reduction theory, but have other variables or outlooks that were considered. A study indicated that there were two primary motivations to consume alcohol. One was to induce positive emotions and the other is to avoid experiences of stress (Colder, 2001). The focus was on the negative reinforcement and that alcohol use is to decrease the stress (Colder, 2001).

## **Hypotheses**

The study was guided by the following hypotheses;

1. There is a significant relationship between stress and depression among adolescents.
2. There is a significant relationship between depression and substance abuse among adolescents.
3. There is a significant relationship between stress and substance abuse among adolescents



## **Chapter Three**

### **Methodology**

#### **Introduction**

This chapter covers the research design, sample design, research instruments and measures, data management, data management and data analysis.

#### **Study Design**

A correlational research design was used to examine the relationship between stress, depression and substance abuse among adolescents. This is because the design was appropriate to provide detailed information on the relationship between the variables that are under study.

#### **Population**

The study population comprised students of Gayaza Road High School which is located in Kawempe Division in Kampala City, Uganda's capital. This included both males and females from senior one to senior six. The school was used as a study area because of the extensive number of students who are in adolescence stage, something which enabled the researcher to get the required data for the study.

#### **Sample Design**

A total of 150 respondents were selected purposively for this study. Purposive sampling was used since the method was appropriate as they researcher used her own judgment to select who to participate in the study. Purposive sampling was also key when looking for very rare information among a group of people in a particular research study.

## **Instrument and Measures**

Self-administered questionnaires were employed in data collection. A structured questionnaire was constructed with measures including stress, depression and substance abuse. It comprised of closed ended questions which required each respondent to circle or tick on the response of their choice. The tool has four sections (A, B, C and D). Section A which contained items that captured bio-data of respondent, section B measures stress, section assesses depression, and section D examines substance abuse. Items that were used to examine the three study variables (stress, depression and substance abuse) were adapted from already established instruments as shown below;

Stress was measured using a scale of 10 items that was adapted from the Perceived Stress Scale developed by Cohen, Kamarck and Mermelstein (1983). Respondents were required to rate the extent to which they agree with each item on a 5-point Likert scale where (0 = never, 1 = Almost never, 3 = sometimes, 4 = fairly often, and 5 = very often).

Depression was measured using a scale of 18 items that was adapted from the Patient Health Questionnaire developed by Kapla and Saddock (2003). The scale responded to on a 4-point Likert scale where; 0= not at all, 1= several days, 2 = more than half and 3 = nearly every day.

Substance abuse was examined using a scale of 10 items adapted from the Youth Behavior Risk Surveillance Survey (YBRS) used by Eaton and colleagues (2010). Respondents were required to rate the extent to which they agreed with each item on a 4- point Likert scale where (1 = strongly agree, 2 = agree, 3 = disagree and 4 = strongly disagree).

## **Procedure**

The researcher obtained an introductory letter from the School of Psychology that was presented to the Head teacher of Gayaza Road High School to seek permission for carrying out research. When permission was granted, the researcher went ahead to distribute questionnaires to selected respondents (students) who filled them there and then. As questionnaires were being distributed, the researcher also explained the purpose of the study and also assure the respondents that all answers were treated with confidentiality.

## **Data Management and Analysis**

The collected questionnaires were crosschecked by the researcher to ensure accuracy and completeness. This was then followed with data coding which is an analytical process in which data was converted into categories of variables using numbers, to prepare them for entry into the computer. The Statistical Package for Social Sciences (SPSS) was utilized in data analysis. Both descriptive and inferential statistical methods were used. In a descriptive statistics frequency tables were generated to summarize data and then for inferential statistics Pearson Correlation coefficients were used to test the study hypotheses.

## **Ethical Considerations**

As a matter of upholding ethics of research, the researcher followed informed-consent rules when conducting the study. This involved ensuring that all respondents who participated in the study do it voluntarily with full knowledge of relevant risks and benefits. Also, the researcher uphold the respondents' rights to confidentiality and privacy when presenting the study results.

## **Chapter Four**

### **Presentation, Analysis and Discussion of Findings**

#### **Introduction**

This chapter presents the research findings and interpretation of the results. The correlation between the three variables which were, to examine the relationship between stress and substance abuse, to examine the relationship between depression and substance abuse and to examine the relationship between stress and depression among adolescents and they were investigated using Pearson's correlation.

#### **Demographic data of Respondents**

Respondents were asked to indicate their sex and age. Frequencies were obtained and computed into percentages as shown in the Table 1.

**Table 1: Frequencies of respondents' Sex and Age**

| Variables | Responses   | Frequencies | Valid Percentages (%) |
|-----------|-------------|-------------|-----------------------|
| Gender    | Male        | 62          | 41.3                  |
|           | Female      | 88          | 58.7                  |
| Age       | 13-14 years | 2           | 1.3                   |
|           | 15-16 years | 3           | 2.0                   |
|           | 17-18 years | 91          | 60.7                  |
|           | 19-20       | 54          | 36.0                  |

Results in Table 1 show that majority of the respondents were females (58.7%) while males constituted of 41.3% of the respondents in the study. The results continue to show that majority of the respondents were aged between 17-18 years (60.7%), followed by respondents aged between 19-20 years with a percentage of (36%), respondents aged 15-16 years constituted 2% while the least were respondents aged 13-14 years with a percentage of (1.3%).

## Stress

Table 2: Frequencies of respondent's responses on stress

| Items   | Strongly Disagree<br>N (%) | Disagree<br>N (%) | Agree<br>N (%) | Strongly Agree<br>N (%) |
|---|----------------------------|-------------------|----------------|-------------------------|
| I feel stressed when I am home and at school                          | 26 (17.3)                  | 52 (34.7)         | 38 (25.3)      | 34 (22.7)               |
| I feel inadequate to deal with challenges in my life                  | 20 (13.3)                  | 39 (26.0)         | 55 (36.7)      | 36 (24.0)               |
| I'm more short tempered than I have never been                        | 35 (23.3)                  | 52 (34.7)         | 30 (20.0)      | 33 (22.0)               |
| I find myself withdrawing from friends and family members             | 39 (26.0)                  | 42 (28.0)         | 39 (26.0)      | 30 (20.0)               |
| I feel lonely and isolated from the rest of the world                 | 54 (36.0)                  | 31 (20.7)         | 39 (26.0)      | 26 (17.3)               |
| I feel exhausted all the time   | 40 (26.7)                  | 55 (36.7)         | 28 (18.7)      | 27 (18.0)               |
| I find myself thinking negatively in my life and studies all the time | 51 (34.0)                  | 40 (26.7)         | 32 (21.3)      | 27 (18.0)               |

|   |           |           |           |           |
|---|-----------|-----------|-----------|-----------|
| I find it difficult to find meaning in my life                  | 41 (27.3) | 50 (33.3) | 34 (22.7) | 25 (16.7) |
| I find it difficult to get involved in making decisions at home | 32 (21.3) | 39 (26.0) | 43 (28.7) | 36 (24.0) |
| I find myself blaming others for my problems.                   | 45 (30.0) | 45 (30.0) | 40 (26.7) | 20 (13.3) |

Results in table 2 shows that 34.7% of respondents disagreed that they feel stressed when they are at home and school while 22.7% strongly agreed. 36.7% agreed that they feel inadequate to deal with challenges in their life while 13.3% strongly disagreed. 34.7% disagreed that they are shorter tempered than they have ever been while 20% agreed. Table 2 also shows that 28% disagreed that they find themselves withdrawing from friends and family members, 20% strongly agreed.

Table 2 also shows that 36% strongly disagreed that they feel lonely and isolated from the rest of the world while 17.3% strongly agreed. 36.7% disagreed that they feel exhausted all the time while 18% strongly agreed. 34% strongly disagreed that they find themselves thinking negatively about their life and studies all the time while 18% strongly agreed. 33.3% Of the respondents disagreed that they find it difficult to find meaning in their life while 16.7% strongly agreed.

Table 2 further shows that 28.7% agreed that they find it difficult to get involved in making decisions at home while 21.3% strongly disagreed. 30% strongly disagreed that they find themselves blaming others for their problems while 13.3% strongly agreed.

## Depression

Table 3: Frequencies of respondents' responses on depression

|  | Strongly Disagree | Disagree  | Agree     | Strongly Agree |
|--|-------------------|-----------|-----------|----------------|
| Items  | N (%)             | N (%)     | N (%)     | N (%)          |
| I am sad all the time                                | 43 (28.7)         | 60 (40.0) | 23 (15.3) | 24 (16.0)      |
| I feel my future is hopeless and will only get worse | 81 (54.0)         | 47 (31.3) | 9 (6.0)   | 13 (8.7)       |
| As I look back, i see a lot of failures              | 38 (25.3)         | 58 (38.7) | 36 (24.0) | 18 (12.0)      |
| I can't get pleasure from the things i used to enjoy | 29 (19.3)         | 45 (30.0) | 40 (26.7) | 36 (24.0)      |
| I feel quite guilty most of the time                 | 30 (20.0)         | 49 (32.7) | 44 (29.3) | 27 (18.0)      |
| I feel i am being punished                           | 45 (30.0)         | 35 (23.3) | 47 (31.3) | 23 (15.3)      |



|   |           |           |           |           |
|---|-----------|-----------|-----------|-----------|
| I am disappointed in myself                               | 34 (22.7) | 40 (26.7) | 44 (29.3) | 32 (21.3) |
| I blame myself for everything bad that happens            | 31 (20.7) | 39 (26.0) | 45 (30.0) | 35 (23.3) |
| I would like to kill myself                               | 88 (58.7) | 28 (18.7) | 16 (10.7) | 18 (12.0) |
| I feel like crying but i cant                             | 34 (22.7) | 25 (16.7) | 44 (29.3) | 47 (31.3) |
| I am so restless or agitated that it's hard to stay still | 38 (25.3) | 40 (26.7) | 40 (26.7) | 32 (21.8) |

Results in Table 3 show that 40% of the respondents disagreed that they are sad all the time while 16% strongly agreed. 54% strongly disagreed that they feel their future is hopeless and will only get worse while 6% agreed. 38.7% disagreed that they can't get pleasure from the things they used to enjoy while 24% strongly agreed. 29.3% agreed that they feel quite guilty most the time while 20% strongly disagreed.

Table 3 also shows that 31.3% agreed that they feel they are being punished while 23.3% disagreed. 29.3% agreed that they are disappointed in themselves while 22.7% strongly disagreed. 30% disagreed that they blame themselves for everything bad that happens while 20.7% strongly disagreed. 58.7% strongly disagreed that they would like to kill themselves while 10.7% agreed. 31.3% strongly agreed that they feel lie crying but they can't while 1.7% disagreed. 26.7% disagreed that they are so restless or agitated that it's hard to stay still while 21.3% strongly agreed.

### Substance Abuse

**Table 4: Frequencies of respondents' responses on Substance Abuse**

|   | Strongly Disagree | Disagree  | Agree     | Strongly Agree |
|---|-------------------|-----------|-----------|----------------|
| Items   | N (%)             | N (%)     | N (%)     | N (%)          |
| I have used drugs other than those required for medical reasons | 91 (60.7)         | 16 (10.7) | 19 (12.7) | 24 (16.0)      |
| I have abused more than one drug at a time                      | 91 (60.7)         | 23 (15.3) | 22 (14.7) | 14 (9.3)       |
| I can go through the week without                               | 33 (22.0)         | 13 (8.7)  | 26 (17.3) | 78 (52.0)      |

|  |           |           |           |           |
|--|-----------|-----------|-----------|-----------|
| using drugs  |           |           |           |           |
| My family has ever neglected me  | 76 (50.7) | 29 (19.3) | 21 (14.0) | 24 (16.0) |
| I have gotten into fights under the influence of drugs                             | 98 (65.3) | 24 (16.0) | 16 (10.7) | 12 (8.0)  |
| I have engaged in illegal activities to obtain drugs                               | 111 (74)  | 17 (11.3) | 13 (8.7)  | 9 (6.0)   |
| I have been arrested for possession of illegal drugs                               | 111 (74)  | 21 (14.0) | 9 (6.0)   | 9 (6.0)   |
| I have ever experienced withdrawal symptoms/ felt sick when i stopped taking drugs | 86 (57.3) | 33 (22.0) | 16 (10.7) | 15 (10.0) |

|  |           |           |         |           |
|--|-----------|-----------|---------|-----------|
| I have medical problems as a result of my drug use                             | 97 (64.7) | 27 (18.0) | 9 (6.0) | 17 (11.3) |
| I have been involved in a treatment program specifically related to drug abuse | 92 (61.3) | 30 (20.0) | 9 (6.0) | 19 (12.7) |

Results in table 4, show that 60.7% of the respondents strong disagreed that they have used drugs other than those required for medical reasons while 12% agreed. 60.7% strongly disagreed that they have abused more than one drug at a time while 9.3% strongly agreed.52% strongly agreed that they can through the week without using drugs while 8.7% disagreed.50.7% strongly disagreed that their family has ever neglected them while 14% agreed.65.3% strongly disagreed that they have gotten into drugs under the influence of drugs while 8.0% strongly agreed. 74% strongly disagreed that they have engaged in illegal activities to obtain drugs while 6% strongly agreed.

Table 4 above also shows that 74% strongly disagreed that they have been arrested for possession of illegal drugs while 6% strongly agreed. 57.3% strongly disagreed that they have ever experienced withdrawal symptoms/felt sick when they stopped taking drugs while 10% strongly agreed. 64.7% strongly disagreed that they have medical problems as a result of their drug use while 6% agreed. 61.3% strongly disagreed that they have been involved in treatment program specifically related to drug use while 6% agreed.

### **Stress and Substance Abuse**

Pearson’s Product Moment Correlation Coefficient was used to determine the significance of the relationship between Stress and Substance Abuse, the results were as follows.

**Table 5: Correlation between Stress and Substance Abuse among Adolescents**

|                 |                     | Stress | Substance Abuse |
|-----------------|---------------------|--------|-----------------|
| Stress          | Pearson Correlation | 1      | .297**          |
|                 | Sig.(2-tailed)      | .      | .000            |
|                 | N                   | 150    | 150             |
| Substance Abuse | Pearson Correlation | .297** | 1               |
|                 | Sig.(2-tailed)      | .000   | .               |
|                 | N                   | 150    | 150             |

Correlation is significant at the 0.05 level (2-tailed)

Correlation results in Table 5 show that there is a significant relationship between stress and substance abuse among adolescents ( $r = .297^{**}$ ,  $p = .000$ ). The p value (.000) is smaller than 0.05 in magnitude ( $p = .000 < 0.05$ ). Therefore, the alternative hypothesis is retained and it is concluded that there is a significant positive relationship between stress and substance abuse among adolescents. This implies that when adolescents are faced with life stressors, they start using substances and drugs so as to avert their stress.

### **Stress and Depression**

Pearson's Product Moment Correlation Coefficient was used to determine the significance of the relationship between Stress and Depression, the results were as follows.

**Table 6: Correlation between Stress and Depression among Adolescents**

|            |                     | Stress | Depression |
|------------|---------------------|--------|------------|
| Stress     | Pearson Correlation | 1      | .606       |
|            | Sig.(2-tailed)      | .      | .000       |
|            | N                   | 150    | 150        |
| Depression | Pearson Correlation | .606   | 1          |
|            | Sig.(2-tailed)      | .000   | .          |
|            | N                   | 150    | 150        |

Correlation is significant at the 0.05 level (2-tailed)

Correlation results in Table 6 show that there is significant relationship between stress and depression among adolescents ( $r = .606$ ,  $p = .000$ ). The p value (.000) is smaller than 0.05 in magnitude ( $p = .000 < 0.05$ ). Therefore, the alternative hypothesis is retained and it is concluded that there is a significant relationship between stress and depression among adolescents. This implies that when adolescents fail to cope up with the stressors in their day to day life, they get into depression.

## Depression and Substance Abuse

Pearson's Product Moment Correlation Coefficient was used to determine the significance of the relationship between Depression and Substance Abuse, the results were as follows.

**Table 7: Correlation between depression and substance abuse among Adolescents**

|                 |                     | Depression | Substance Abuse |
|-----------------|---------------------|------------|-----------------|
| Stress          | Pearson Correlation | 1          | .320            |
|                 | Sig.(2-tailed)      | .          | .000            |
|                 | N                   | 150        | 150             |
| Substance Abuse | Pearson Correlation | .320       | 1               |
|                 | Sig.(2-tailed)      | .000       | .               |
|                 | N                   | 150        | 150             |

Correlation is significant at the 0.05 level (2-tailed)



Correlation results in Table 7 show that there is significant relationship between depression and substance abuse among adolescents ( $r = .320$ ,  $p = .000$ ). The p value (.000) is smaller than 0.05 in magnitude ( $p = .000 < 0.05$ ). Therefore, the alternative hypothesis is retained and it is concluded that there is a significant relationship between depression and substance abuse among adolescents. This implies that when adolescents get depressed in life, they tend to resort to substance abuse as a solution to their issues in life.

## **Chapter Five**

### **Discussion, Conclusion and Recommendations**

#### **Introduction**

This chapter presents the discussion of the study results on relationship between Stress, Depression and Substance abuse among adolescents. It also presents the conclusion and recommendations.

#### **Stress and Substance Abuse among Adolescents**

The first alternative hypothesis stated that there is a significant relationship between stress and substance abuse among adolescents. The results of the study also indicated that there is a significant relationship between stress and substance abuse among adolescents. This implies that when adolescents are stressed or faced with life stressors like academics, family conflicts and challenges and also relationship issues, they are bound to resort to using and abusing substances and drugs as a stress remedy. The findings are in line and agreement with many researchers, and some of them are the following;

The findings are in agreement with Sinha, R., (2008) who argues that stress is a well-known risk factor in the development of substance abuse. A series of population-based and epidemiological studies have identified specific stressors and individual-level variables that are predictive of substance use and abuse. Furthermore, pre-clinical research also shows that stress exposure enhances substance abuse. In a study conducted in United States 75% of addicted adolescents reported experiencing moderate to high levels of stress in the past month and nearly half reported that their stress has increased in the past year (Sinha, R., 2008).

Gilman, S. E., (2001) also agrees with the findings when he stated that Stress is a major underlying factor in the manifestation of many mental disorders among adolescents including substance abuse the socio-ecological model which takes into account the multifaceted interaction between individual, relationship, community, and societal factors, helps us to understand the risk factors or determinants of stress and other psychiatric disorders (Sword, W., 1999). Adolescents, who are in a vital period of development, both physically and psychologically, may experience high levels of stress (Cripps, K., & Zyromski, B., 2009), and the inability to deal with stress effectively may prove to be hazardous. This may very well depend upon the personality traits and the coping mechanisms an adolescent utilize to meet the stressor (Thoits, P. A., 1995). The perception and appraisal of stress relies on specific aspects of the presenting external or internal stimuli, personality traits, availability of internal resources (including physiological condition of the individual), prior emotional state (including beliefs and expectancies), and specific brain regions mediating the appraisal of stimuli as distressing, and the resulting physiological, behavioral, and emotional experiences and adaptive responses (Sinha, R., 2008).

There is a substantial literature on the significant association between acute and chronic stress and the motivation to abuse addictive substance by Sinha, R. (2008) is in agreement with the new finds where many of the major theories of addiction also identify an important role of stress in addiction processes (Kwako, L. E., & Koob, G. F., 2017). These range from psychological models of addiction that view drug use and abuse as a coping strategy to deal with stress, to reduce tension, to self-medicate, and to decrease withdrawal-related distress, to neurobiological models that propose incentive sensitization and stress allostasis concepts to explain how neuro adaptations in reward, learning, and stress pathways may enhance craving, loss of control, and compulsion, the key components in the transition from casual use of

substances to the inability to stop chronic use despite adverse consequences (Milivojevic, V., & Sinha, R.,2018).

Additionally, this finding is also in agreement with the new results where it says there is also growing evidence that adolescents at risk for substance abuse who have experienced several stressors are more likely to show decreased emotional and behavioral control, and decreased self-control is associated with substance abuse and other maladaptive behaviors (Brady, M. A., 2015). Additionally, adolescents who abuse drugs are known to have decreased executive functioning, low behavioral and emotional control, poor decision making, and greater levels of deviant behavior and impulsivity (Wills, T. A., 2011).

In conclusion, the findings of the study were in agreement with the previous studies of different researchers which showed that there was a significant relationship between stress and substance abuse among adolescents. So it is concluded that stress and substance abuse are significantly related.

### **Stress and Depression among adolescents**

The second alternative hypothesis stated that there is a significant relationship between stress and depression among adolescents. The findings of the study also revealed that there is a significant relationship between stress and depression among adolescents .This implies that when life stressors among adolescents are not given much attention by the peers and family members through social and emotional support, they tend to get into depression where their interest in doing most of the things they loved is lost or becomes very low. This goes to all stakeholders in adolescents' lives that is, parents, care givers, teachers, and the government at large to ensure that life stressors among adolescents are handled in the right ways possible so as not to let them

into depression. The above findings are in line and agreement with the previous researchers, this is discussed as follows;

Stress refers to a state of psychological and physical imbalance resulting from the disparity between situational demands and the individual's ability and motivation to meet the demands upon him or her (De Jonge, J., 2003). It is a process that puts the bodily systems under strain in order to cope with the environmental demands that bring about psychological and biological changes that could account for an illness (Engel, G. L., 1960). Hence Sadaghiani, N. S. K., et al (2013) agrees with the current finding where he argues that there is a strong link between stress and depression especially among adolescents in slums due to the fact they usually resort to short term and unhealthy coping mechanisms like alcohol consumption which don't only serve as a temporary solution but also resulting into problematic behaviors and psychological problems and sometimes death

According to Korte, S. M., et al., (2005), if the stress is continued or prolonged, it can leave adverse effects on body's immune, cardiovascular, neuroendocrine and central nervous systems. When chronic stress goes untreated it can result into serious disabilities like insomnia, weakened immune system, high blood pressure, anxiety and muscle pain. Hence, these results are in agreement with the current results as they argued that it can also play a role in developing major disorders like depression (Evidences have been found that the combination of emotional arousal and neuroendocrine stimulation due to prolonged stress causes chronic insomnia among adolescents (Pervanidou, P., & Chrousos, G. P., 2012) . In a cross-sectional study of a stress buffering model, Neff and Husaini (1980), reported that life events were more strongly related to depressive symptomatology for adolescents in slums (Hull, P. C., 2004).

Depression among other psychotic disorders is one of the most prevalent disorders with the lifetime prevalence of more than 17% in the general population (Perälä, J., 2007). Researchers have associated elevated cortisol level in bloodstream to be one of the major causes of major depressive disorder as a result of HPA hyper activation (Handwerker, K., 2009). People with cognitive impairment, a distinct indicator of depression, have shown abnormalities in HPA activation Allison, D. J., & Ditor, D. S. (2014). The other way around HPA axis deregulation has been found in patients with severe depressive symptoms (Fornaro, M., et al., 2019). A recent literature review proposed that prolonged stress and pathological anxiety are responsible for causing structural degeneration in the brain and reduced functioning of hippocampus and the prefrontal cortex which in return increase the risk of development of disorders like depression (Lupien, S. J., et al., 2009).

Further researches have strengthened the proposition that depressive episodes develop after the occurrence of major negative life event by stating that stressful life events are usual for the beginning of depression among adolescents more so those living in slums with unfavorable conditions which all serve as life stressors to adolescents especially in developing countries including unemployment, poor housing, marital conflict, financial strains (Nock, M. K., 2010). Hence the above findings are in agreement with the current findings.

In conclusion, adolescents who encounter stressful life events like academic issues, parent-child discord and poor peer pressure are likely to suffer from depression as compared to their counterparts who are not faced with stress.

## **Substance abuse and Depression**

The third alternative hypothesis stated that there is a significant relationship between depression and substance abuse among adolescents. The findings of the study also revealed that there is a significant relationship between depression and substance abuse among adolescents hence the alternative hypothesis is retained, hence these findings imply that when adolescents have broken into depression in most cases, due to lack of coping mechanisms like social support and resilience, they tend to start abusing drugs and substance as a solution to their life problems and stressors. These fresh findings are in line and agreement with most of the previous researchers and they include some of the following;

Galambos, N. L., (2004) agreed with the current findings when he agreed that depression is a period of at least two weeks when an adolescent has experienced a depressed mood or loss of interest or pleasure in daily activities and had a majority of specified depression symptoms (Approximately 70% of adolescents with depression have functional limitations that meet the criteria for serious emotional disturbance (Friedman, R. M., 1996). Drug abuse is a pattern of substance use that leads to the failure to fulfill responsibilities at work, home, or school and/or repeated use in situations in which it is physically hazardous (Marchesi, J. R., 2011).

Depression, one of the most prevalent mental health disorders, has been steadily increasing among adolescents in the US. In 2014 –2015, one in eight adolescents reported experiencing a major depressive episode (MDE) in the past year (Twenge, J. M., 2019) is in agreement with the current findings, for example, for adolescents, mental illnesses (depression) and substance use disorders often occur together. As many as 60% to 75% of adolescents with substance use disorders are estimated to have a co-occurring mental illness. In some cases,

substance use may begin as a strategy for self-medicating to manage psychiatric symptoms (Cerullo, M. A., & Strakowski, S. M., 2007). Furthermore, among adolescents, depression is associated with poor health and behavioral outcomes, including higher risks of substance abuse, unsafe sexual practices, and violence and lower achievement on tests, lower teacher-rated grades, and poorer peer relationships (Bradley, B. J., & Greene, A. C., 2013).

Additionally, Age trends suggest that substance use is a developmental phenomenon, which increases almost linearly from early to late adolescence and alcohol is the most commonly abused substance (Young, S. E., et al., 2002). The reasons underlying the relationship between depression and drug abuse may vary according to the unique contribution a specific substance makes to the experience of depressed mood (Khantzian, E. J., 1997). For instance some studies suggest that marijuana may have unique contributions to the experience of depressed mood and yet marijuana use often co-occurs with alcohol use and existing research indicates that individuals who use both alcohol and marijuana experience higher rates of depression when compared to those who use either substance alone (Agrawal, A., 2012). For instance research studies indicate that excessive drinking can increase poor emotional health often manifesting as depression, stress, and anxiety that adversely affect interpersonal relationships, additionally, research has shown a strong link between addiction and the disruption of family relationships, including severe psychosocial and physical effects on family members described as depression, anxiety, and stress (Rozanski, A., 1999). Relatedly, a cross sectional study by (Brook, Brook, Zhang, Cohen, & Whiteman, 2002) found out Adolescent tobacco use and other substances was significantly associated with an increased risk of depression episodes.

According to Pradhan et al., (2013), depression is frequently found as comorbidity among adolescents who abuse substances. Most of the time it is reported as underdiagnosed and a



majority of patients go untreated. Many studies have indicated that comorbid depressive symptoms play a major role in the prognosis of substance use disorder and the relapse has been found to be greater in patients who have a comorbid depression (Fang, H., et al., 2019). An adolescent who is suffering from depression may feel hopeless, lonely and gradually plunges into drug abuse and vice versa (Downey, A. M., 1991). This two way relation is a serious matter of concern for the patient, their families, health services and society (Andersen, R. M., 1995). Recent research studies have confirmed the fact that depression and is a factor related to the substance use among adolescents. However, the presence of depressive symptoms may be considered also a consequence of the drug abuse. For example, the frequent use of alcohol among adolescents is associated with the presence of depressive symptoms (Swendsen, J. D., 2000). Also, more frequent cannabis use has been suggested to be associated with increases in rates of depressive symptoms (Turna, J., 2019).

In Uganda however, there is not much research that has been done and therefore the relation between depressive symptoms and drug abuse is not entirely clear, neither is there any clear evidence of whether it is the mental problem or the high risk of drug abuse which comes first among adolescents in slums, or whether all substances have the same emotional connection with the problem.

In conclusion the study results were in agreement with previous research studies that showed that there is a relationship between substance abuse and depression among adolescents. Substance abuse is a significant causal factor to depression that is; substance abuse exposes adolescents to social rejection and loss of control over their lives which increases their susceptibility to depressive symptoms and depression.

## **Recommendations**

The researcher made the following recommendations in line with the study findings;

Local council authorities should put in place counseling sessions for adolescents who are affected by stress since it may affect the overall functioning of adolescents in their day to day lives and in their relationships with other people around them.

Psycho education trainings should be provided to adolescents to equip them with diversity of skill on how to cope with stress and depression, negativity of substance abuse and how they can live a free and healthy life.

Media campaigns against substance abuse should be initiated by the government on internet platforms for example Facebook, Twitter, Instagram, condemning the use of drugs and showcasing their long term effect on one's health and physical wellbeing this will help to increase awareness especially in these slum areas like Katanga hence save adolescents from drug addiction.

Community workers these can range from community psychologists to other fields should turn their focus on the poor and desperate youth being eaten up by the vice of substance abuse and not only concentrate in urban areas as this will help reduce on the use of drugs .These can be inform of educational outreaches and rallies to create awareness on the effects of drug use

There should also be establishment of rehabilitation centers to help those who have broken down due to depression and substance abuse and addiction to get medication and also help in Katanga slums.

### **Areas for Future Research**

There is need to conduct a similar study in a rural settings of Uganda to observe if similar results or different results will be obtained since the experience in a rural setting may be even worse.

Future research is needed to carry out qualitative research on stress and depression among adolescents, with a big sample size to observe if it will have an impact on their substance and drug abuse.

### **Limitations of the Study**

The researcher anticipated a methodology limitation since the designed questionnaire was closed ended which requires NO or YES without giving room to the explanations of respondents. It also involves self-reports which are subjected to reporting bias.

Slow and Non- response; since the researcher did not know the kind of respondents they were dealing with, some of them failed to respond to questionnaires, delay to fill them and others were be rear to be found. Therefore, this required the researcher to set an appropriate appointment with the respondents in order to ensure that data is availed in time.

Limited Disclosure; Due to the sensitivity of the study, some respondents refused to give some data to the researcher. The researcher however tried to overcome this by building a rapport and ensure confidentiality and showing an introductory letter acquired from the university fully explaining the purpose of the research.

Time; the time allowed to do this research was not enough to allow the researcher study and obtain all the essential information for much more suitable conclusions due to COVID-19 Pandemic. The problem however was minimized by putting much effort on this research so as to meet the deadline while following the Standard Operation Procedures of COVID-19.

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## **Appendices**

### **Appendix 1: Questionnaire**

**MAKERERE UNIVERSITY**

**COLLEGE OF HUMANITIES AND SOCIAL SCIENCES (CHUSS).**

**SCHOOL OF PSYCHOLOGY**

I am by name **Namatovu Phiona** of a third year student of Makerere University pursuing a bachelors degree of Community Psychology and i am kindly requesting a few minutes of your time to help me fill the attached questionnaires of my topic entitled stress ,depression and substance abuse among adolescents in, Kawempe division. I promise that ethical consideration shall be observed and information from the respondents to the researcher shall be treated with utmost confidentiality and privacy. It will strictly be used for academic purposes only.

Thanks a lot for your participation.

## Section A: Background Information

1. Gender: (a). Male  (b). Female

2. Age: 13-14 years  15-16 years  17-18 years  19-20 years

## Section B: Stress

**Instruction: Please tick the most appropriate response**

| No | Items   | Strongly Disagree | Disagree | Agree | Strongly Agree |
|----|---|-------------------|----------|-------|----------------|
| 1  | I feel stressed when I am home and at school              |                   |          |       |                |
| 2  | I feel inadequate to deal with challenges in my life      |                   |          |       |                |
| 3  | I'm more short tempered than I have never been            |                   |          |       |                |
| 4  | I find myself withdrawing from friends and family members |                   |          |       |                |
| 5  | I feel lonely and isolated from the rest of the world     |                   |          |       |                |
| 6  | I feel exhausted all the time                             |                   |          |       |                |

|    |   |  |  |  |  |
|----|---|--|--|--|--|
| 7  | I find myself thinking negatively in my life and studies all the time |  |  |  |  |
| 8  | I find it difficult to find meaning in my life                        |  |  |  |  |
| 9  | I find it difficult to get involved in making decisions at home       |  |  |  |  |
| 10 | I find myself blaming others for my problems.                         |  |  |  |  |

### Section C: Substance Abuse

**Instruction: Please tick the most appropriate response**

| No | Statement   | Strongly Disagree | Disagree | Agree | Strongly Agree |
|----|---|-------------------|----------|-------|----------------|
| 1  | I have used drugs other than those required for medical reasons |                   |          |       |                |
| 2  | I have abused more than one drug at a time                      |                   |          |       |                |
| 3  | I can go through the week without using drugs                   |                   |          |       |                |
| 4  | My family has ever neglected me                                 |                   |          |       |                |
| 5  | I have gotten into fights under the influence of drugs          |                   |          |       |                |
| 6  | I have engaged in illegal activities to obtain drugs            |                   |          |       |                |
| 7  | I have been arrested for possession of                          |                   |          |       |                |

|    |   |  |  |  |  |
|----|---|--|--|--|--|
|    | illegal drugs   |  |  |  |  |
| 8  | I have ever experienced withdrawal symptoms/felt sick when I stopped taking drugs             |  |  |  |  |
| 9  | I have medical problems as a result of my drug abuse (memory loss, convulsions, bleeding etc) |  |  |  |  |
| 10 | I have been involved in a treatment program specifically related to drug use                  |  |  |  |  |



## Section D: Depression

**Instruction: Please tick the most appropriate response**

| No. | Items  | Strongly disagree | Disagree | Agree | Strongly agree |
|-----|--|-------------------|----------|-------|----------------|
| 1   | am sad all the time                                  |                   |          |       |                |
| 2   | I feel my future is hopeless and will only get worse |                   |          |       |                |
| 3   | As I look back, I see a lot of failures              |                   |          |       |                |
| 4   | I can't get pleasure from the things I used to enjoy |                   |          |       |                |
| 5   | I feel quite guilty most of the time                 |                   |          |       |                |
| 6   | I feel am being punished                             |                   |          |       |                |
| 7   | Am disappointed in myself                            |                   |          |       |                |
| 8   | I blame myself for everything bad that happens       |                   |          |       |                |
| 9   | I would like to kill myself                          |                   |          |       |                |
| 10  | I feel like crying but I can not                     |                   |          |       |                |

**Thank you so much for your time**