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EFFECTS OF "ADOLESCENT" SUBSTANCE USE ON THE FAMILY IN AN URBAN SETTING IN GHANA.

BY

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DECLARATION

"I do hereby declare that this work is the result of my own research and has not been presented by anyone for any academic award in this or any other University. All references used in the work have been fully acknowledged. I bear sole responsibility for any shortcomings."

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CERTIFICATION

"I do hereby certify that this thesis was supervised in accordance with procedures laid down by the University."

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DEDICATION

With phenomenal gratitude and affection, I dedicate this work to my mom, Mrs. Nancy Knox, for her unconditional love, financial support, and care throughout my life.

I love you dearly, mom.

Thank you.

God bless you lavishly!

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Abstract

Individuals with substance use disorders (SUDs) or mental illness obviously affect almost all aspects of family life; from their mental health, family burden and courtesy stigma. In his classic text, Goffman (1963) defined courtesy stigma as the negative impact that results from association with a person who is marked by a stigma. Family members of relatives with SUD report they are frequently harmed by this kind of stigma (blame, shame and contamination) as well as poor mental health. This present study aimed at investigating the effects of adolescent SUD on the family. Based on several gaps in foreign and local researches in this area, objectives of the present study were to examine the influence of adolescents SUDs on the family's mental health (Psychological wellbeing and psychological distress). Other objectives were to ascertain the relationship between adolescent's substance use and courtesy stigma among family members of relatives with SUD relative and to also assess the level of burden the family experience as a result of their relative's SUD. A sample of 80 participants from the Greater Accra Region participated in the study; families with SUD consisted of 40 whereas families with no SUD also consisted of 40. This study was conducted as a cross-sectional survey design. The following were used as instruments: Mental health inventory, caregiver burden scale and family stigma scale. It was found that family members of adolescents without SUD experienced better psychological wellbeing as compared with family members of adolescents with SUD relatives. Again, it was found that family members of adolescents with SUD relative experienced more burden as well as stigmatized as compared with family members with no SUD relative. This research has been pertinent as it has made available essential baseline data with regard to the psychosocial burden experienced by families with SUDs relative. Again, these findings can assist health professionals create an intervention for caregivers with SUDs.

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LIST OF ABBREVIATIONS

DSM	Diagnostic Statistical Manual
LSD	Lysergic Acid Diethylamide
M	Mean
MDMA	(Methylenedioxymethamphetamine)
SD	Standard Deviation
SPSS	Statistical Packages for the Social Sciences
SU	Substance Use
SUD	Substance Use Disorder
WHO	World Health Organization

CHAPTER ONE

Introduction

Background

Persons with substance use disorders (SUDs) in a family have impact on almost all aspects of family life. According to Lander, Howsare, and Byrne (2013) every single family member is uniquely affected by the individual using the substances including, but not limited to, economic hardship, legal problem, emotional distress and sometimes violence toward family members. Other studies have also reported that, family members, who often provide care for relatives with SUDs and other mental illness usually experience: physical, emotional, social and financial burden (Chou, LaMontagne, & Hepworth, 1999; Tennstedt, Cafferata, & Sullivan, 1992).

In Ghana, the family is the key resource in the care of patients, including those with mental illness (SUDs) (Aboagye, Agyemang & Tjerbo, 2013). This has been attributed to the Ghanaian cultural emphasis on inter-dependence and the concern for close relatives in adversity (Markus & Kitayama, 1991). Most Ghanaian families prefer to be significantly involved in all facets of care of their relatives despite the negative impact it may have on their life and health (Aboagye, et al., 2013). Before, Substance use, such as alcohol, did not seem to be a very big part of the life and culture of Ghanaians, even though, traditionally, alcohol and water were used during naming ceremonies as symbolism for honesty and truthfulness in Ghana. Currently, due to the negative impacts of alcohol on a child's health, most Ghanaians are using honey, salty water and water for naming ceremony. However, in present day, alcohol is commonly used during occasions such as marriage rite ceremonies, funerals, parties, durbars, just to name a few in Ghana (Yarney, Mba &

Asampong 2015). It is important to note that despite the usage of alcohol at certain occasions, most religious bodies in Ghana, especially Islam and Mormons, strictly prohibit the use of legal and illegal drugs (Miller, 1998).

Religion and substance use in Ghana.

Ghana is known to be a religious country. According to Gyekye (2003), religion refers to "the awareness of the existence of some ultimate, supreme being who is the origin and sustainer of this universe and the establishment of constant ties with this being" (p. 3). Mish, Gilman, McHenry, Pease, Jr., Bollard, Collier et al. (1990), defined it as "the service and worship of God or the supernatural" and as "a personal set or institutionalized system of religious attitudes, beliefs, and practices" (p. 995).

Majority of the people in Ghana are affiliated with a form of religion. The 2010 population and housing census in Ghana shows that 71.2 percent of the population profess the Christian faith, followed by Islam (17.6%). Only a small proportion of the population either adhere to traditional religion (5.2%) or are not affiliated to any religion (5.3%) (Ghana Statistical Service, 2012).
Also, the 2012 Win-Gallup International's Global Index of Religiosity and Atheism, suggest that Ghana is the first among the top 10 religious populations of the world with 96% of Ghanaians stating that they are religious. According to Atiemo (2013) religion in Ghana is not only important because of the number of citizens that claim religious adherence but also because of its intense manifestation in the daily lives of the people and the extent of the impact of its ideas.

Undeniably, religion does have a great impact on the daily lives of Ghanaians because religious beliefs in Ghana are not a matter of purely personal concerns but are always part of the issues debated on in public in that all public matters, such as politics, the economy, health and education, and of course substance use, are subjects of religious discourse (Gyasi-Gyamerah, 2014). The Seventh - day Adventist church for instance, place special emphasis on self-control issues such as abstaining from injurious alcohol and tobacco practices; avoidance of patent remedies of the day in favour of natural remedies (Ganu, 2013).

In addition to the strong religious messages, there are laws which govern the use of advertisement on alcohol in Ghana.

The law and substance use in Ghana

In Ghana, the advertisement of substance such as alcohol is seen and heard all the time on the mass media. There's not a single day that one will not see or hear the advertisement of alcohol on the electronic media such as the radio and the television. However, the Liquor Licensing Act 1970 (Act 331) of Ghana makes certain provisions (13) concerning the advertisement of alcohol. These include: "Advertising of alcoholic drinks should not be directed at persons under 18 years in contravention of the Liquor Licensing Act 1970 (Act 331). Presentation of advertisements on alcoholic drinks likely to be of particular appeal to children should be avoided; Children should not be seen or heard in an advertisement for alcoholic drinks; In advertisements for drinks containing alcohol anyone associated with drinking should be or appear to be at least 18 years old; Advertisements for alcoholic drinks should not feature any personality whose example persons under 18 years are likely to emulate or who has a particular appeal to persons under that age; Advertisements should not imply that drinking is essential to social Success or acceptance or that refusal is a sign of weakness. It should also not be implied that the successful outcome of a social occasion is

dependent on the consumption of alcohol; Advertisements should not claim that alcohol has therapeutic qualities nor should it be presented as a stimulant, sedative or tranquilizer; While advertisements may refer to refreshment after physical performance they should not give any impression that performance can be improved by alcoholic drinks; Advertisements should not suggest that a drink is to be preferred because of higher alcohol content or intoxicating effect; Advertisements should neither claim nor suggest that any alcoholic drink can contribute towards sexual success or can enhance sexual attractiveness; Advertisements should not suggest that regular solitary drinking is acceptable or that drinking is a means of resolving personal problems; No advertisement should suggest that drinking is an essential attribute of masculinity. Advertisements featuring toughness or bravado in association with drinking should not be used. Alcoholic drinks should not be advertised in the context of aggressive or anti-social behavior; Alcoholic drinks should not be seen to be consumed in a working environment unless it is clearly established that the working day has ended;" just to name a few.

Despite the above provisions of the Liquor Licensing Act 1979 (Act 331) of Ghana, virtually all the alcoholic drinks and beverages, especially those who claim to have been manufactured with herb such as Adonko bitters for example, keep advertising each passing day that: "if you drink you will become a strong man (masculinity), you will be able to perform (sex) in bed like a machine, your partner will love you more (sexual attractiveness)" (Ghanacelebrities.com, 2015).

Examples of locally brewed alcoholic beverages in Ghana include: Adonko Bitters, Darling, Ogidigidi, Castle Bridge, Kasapreko Opeimu Bitters, Pashew Gin Bitters, Brukutu, Kasapreko

Alomo Bitters, Kasapreko Strawberry, Joy Dadi, just to mention a few. Whereas some of the foreign alcoholic beverages in Ghana include: Hennessy, Grey Goose, Baileys, Johnny Walker, Heineken large beer, Don Simon, McDowell, Campari, Smirnoff Vodka, just to name a few.

These adverts are seen in newspapers, on TV, on radio, posters, online, just to mention a few. National celebrities are sometimes involved with appealing adverts of alcoholic drinks on the mass media to invite individuals who are 18 years and older to make use of it (Ghanacelebrities.com, 2015).

The nature of Ghanaian family system.

The family is known to be a social institution that performs certain functions such as biological and psychological functions by providing love and affection for its members, as well as provide its member the facilities and requirements of basic needs like food supply, house and clothing; economic and social functions such as imparting basic knowledge to its members about every little thing; and cultural, religion and recreational functions by passing on cultural and religious practices to its member.

The word 'family' is used to refer to both the nuclear unit and extended unit of family. Also, it can be said to be a group of persons linked by kinship connections of which the older members take care of the younger ones (Giddens, 1992). According to Nukunya (2003), the nuclear family consists of the mother, father, and children, whereas, the extended family includes parents, siblings, uncles, cousins, aunts, grandparents, and great-grand parents. However, Nukunya, further stated that, the Ghanaian nuclear family can be identified in various forms: (1) Two parents living together in the same household with their children, biological or adopted; (2) Parents may live in

different households and each child may be living with one parent at a time. In Ghana, this second variation is common in both monogamous and polygynous families, in situations where one of the parents migrates or in the incidence of marital disruption such as separation, divorce or widowhood; and (3) one parent may take care of his or her children single-handedly; otherwise known as the single-parent family.

However, the extended family is the most important unit of Ghanaian family structure. It plays an important role in the development of an individual and in the maintenance of socio-cultural values in Ghana. The extended family extends beyond the immediate or the nuclear family of parents and their children. The extended family include, aside from parents and their children: grandparents; spouses of children; cousins, aunts and uncles; and in cases where there have been second (and more) marriages producing children, the extended family includes step-children and their kin (Nukunya, 2003).

According to Giddens (1989), the extended family structure is usually sustained through a sense of kinship, networks, and marriages. The family is acknowledged as the bedrock of all social life and it is responsible for the care and upbringing of all children. The African setting including Ghana is often regarded as an interdependent community (Markus & Kitayama, 1991). This setting is usually associated with pro-social orientation or communal harmony. Due to the interdependent nature of Ghanaian settings, the family is regarded as a cohesive unit, which provides economic, social and psychological security to all its members.

What is a substance and its classification?

Halgin and Whitbourne (2000) defined a substance to be a chemical that alters a person‘s mood or behavior when it is smoked, injected, drunk, inhaled, or swallowed in pill form. The Diagnostic and Statistical Manual of Mental Disorders Fourth Edition (DSM-4) also referred to substance as a drug of abuse, a medication or a toxin (American Psychiatric Association (APA), 1994). However, the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5), no longer uses the terms ‘substance abuse’ and ‘substance dependence,’ rather it refers to substance use disorders (SUDs), which are defined as mild, moderate, or severe to indicate the level of severity, which is determined by the number of diagnostic criteria met by an individual (APA, 2014). In the DSM-5, SUDS are categorized into 10 separate classes of drugs: alcohol; amphetamines; caffeine; cannabis; cocaine; hallucinogens; inhalants; nicotine; opioids; and sedatives, hypnotics or anxiolytics.

Substance use disorders occurs when the recurrent use of alcohol and/or drugs causes clinically and functionally significant impairment, such as health problems, disability, and failure to meet major responsibilities at school, work, or home (Substance Abuse and Mental Health Services Administration (SAMHSA), 2015). According to the DSM-5, a diagnosis of substance use disorder is based on evidence of impaired control, social impairment, risky use, and pharmacological criteria.

According to National Institute on Drug Abuse (NIBA) (2014), there are many reasons adolescents use substances, including the desire for new experiences, an attempt to deal with problems or perform better in school, and simple peer pressure. NIBA also posits that, adolescents are

"biologically wired" to seek new experiences and take risks, as well as to carve out their own identity. Trying drugs may fulfil all of these normal developmental drives, but in an unhealthy way that can have very serious long-term consequences.

Some effects of substance use.

According to Medindia (2010), substance use disorders are global health problems that impact communities on multiple levels. Directly or indirectly, every society is affected by substance use disorders, as is every family. Substance use does not only corrode the basic structure of a whole society. However, it also affects the family; family can be destroyed by substance use. Infants born to women who smoke during pregnancy have a lower average birth weight and may be at increased risk for attention deficit hyperactivity disorder, conduct disorders, and childhood obesity (Mick, Biederman, Faraone, Sayer & Klienman, 2002; Wakschlag, Pickett, cook, Benowitz & Leventhal, 2002; Toschke, Montgomery, Pfeiffer & von Kries, 2003).

In Ghana for instance, a case series report from Korle-Bu teaching hospital, a study conducted by Badoe (2014) confirmed ten (10) children meeting the criteria for fetal alcohol syndrome. There were five females and five males. 90% presented with failure to thrive and 80% with heart disease. 50% had a form of hernia. All had confirmed maternal alcohol exposure mainly to akpeteshie (a local gin).

Also, babies born to mothers who abuse cocaine during pregnancy can be born prematurely and have low birth weights (Medindia, 2010). There may be as many as 45,000 cocaine-exposed babies per year (NIDA, 1992). Approximately 50% to 80% of all child abuse and neglect cases substantiated by child protective services involve some degree of substance abuse by the child's parents (U.S Department of Health and Human Services, 2002).

In addition, the whole family can seem to be affected when there is a son or daughter using drugs or alcohol. Thus, parents fall out with each other over how to handle the situation, while other sons or daughters can get blamed for being a bad example. The drug user gets so much attention that others are neglected. Substance use can disrupt family life and create destructive patterns of co-dependency, that is, the spouse or whole family, out of love or fear of consequences, unwittingly enables the user to continue using drugs by covering up, supplying money, or denying there is a problem (Lander, Howsare, & Byrne, 2013). Also, a personal information gathered from interviewing a couple of family members at Korle-Bu teaching hospital (Ghana), revealed that, most families especially parents neglect their own health and hide their health problems in order to provide care for their children.

Furthermore, adolescent substance use corrodes the basic structure of a whole society, by affecting a cultured human society in all aspects including destabilizing families, reducing human productivity, corrupting trust worthy governments and honest police, and also, demoralizing law respecting citizens (Medindia, 2015). Medindia further posit that drug lords and people in drug trade bribe politicians and police officers with hefty ransom for securing their trade. Traffickers

try to corrupt or intimidate officials for removing blocks in the drug transit and often have private armies.

Medindia indicates that, globally, over 200 million people consume some form of illicit drugs. From natural bhang, cannabis, opium, to synthetic "designer" drugs like ecstasy or MDMA (methylenedioxymethamphetamine), barbiturate derivatives, benzodiazepines like alprazolam, diazepam, amphetamine, phenethylamine and tryptamine derivatives. Medindia further states that trafficking of illegal drugs and hallucinogens are the largest illegal business in the world accounting for about 8% of international trade, amounting to about $400 billion annually. Drugs disintegrate a whole society. Violence, robbery and risky sexual behaviors connected with substance use have become a mundane affair and most commonly drug consumers often appeal to felony or prostitution to satisfy their vice (Doku, 2012). Bauman and Phongsavan, (1999) noted that alcohol, tobacco and illicit drug use are among the most imperative global public health problems.

Statement of problem

Substance use among adolescents continues to be a growing concern of mental health in Ghana and the world at large (Today & Narcotic Control Board (NACOB), 2014). The Republic of Ghana has a population of approximately 25 million inhabitants (Ghana Statistical Service, 2012). The World Health Organization (WHO) estimates that approximately 650,000 persons in Ghana suffer from a severe mental disorder and further 2.17 million from moderate to mild mental disorders with a treatment gap of 98% of the affected population (WHO, 2007). As of 2014, about 50,000 people, particularly the youth in Ghana, were involved in substance use (Today & NACOB, 2014).

The use of illicit drugs is illegal in Ghana. However, alcohol and cigarette is legal for adults but they are accessible and available to minors (Adu-Mireku, 2003). Available information in Ghana suggests that drug use problem among youth both in school and out of school is on the increase (Doku, Koivusilta, Raisamol, & Rimpelä, 2010).

From the above statistic, Today and NACOB (2014), there is the likelihood for large number of these youths to develop SUDs. Hence, family members tend to provide support and care for their relatives with SUD. They play the role as informal caregivers. Informal caregivers assume a primary role in society, with significant implications in economic, social and human terms (Reine, Lancon, Simeoni, Duplan, & Auquier, 2003). This caregiver becomes vulnerable to psychological disorders and may suffer a breakdown due to tension or overload and present symptoms such as stress, frustration, reduced social interaction, anxiety, depression and reduced self-esteem, among others. These factors can lead to physical, psychological, emotional, social and financial problems. Working with patients and their families is a process that aims to provide the informal caregiver with the support and necessary guidelines to motivate the patient and caregiver and achieve their active participation in the therapeutic process with improvements to the patient's and family's quality of life. For this reason, it is important to know more specifically the kinds of psychosocial effects and burdens relatives experience as a result of providing care for their relatives with SUD and also help health professionals plan and provide appropriate intervention.

Objectives of the study

Broad objective

The broad objective of the study is to examine the effects of adolescents substance use on the family in the Greater Accra Region of Ghana.

Specific objectives

1. To examine the influence of adolescents SUDs on the family's mental health (Psychological wellbeing and psychological distress).
2. To ascertain the relationship between adolescents substance use and courtesy stigma among family members of relatives with SUD relative.
3. To also assess the level of burden the family experience as a result of their relative's SUD.

Relevance of the study

Globally, psychological effects associated with substance use among adolescents and youths are well researched. However, there is scanty investigation on the effects of adolescent substance use on the family. In Ghana this is an area of study is in its infancy and in general there is a dearth of information about the impact adolescent substance use disorders on the family. This urban-based study aims to further examine the relationship between the effects adolescent substance use (SUDs) and the psychosocial wellbeing of the family including the factors that play a major role both in the initiation and maintenance of substance use behaviour among adolescents in Ghana. And also to assess the burden level of family with SUDs and the coping strategies used.

This information would allow for the development of more targeted oriented preventive measures as well as to sensitize the youth on the effects of substance use on their health and that of their family. Finally, the results of this study will provide some insights and information on the problems and difficulties that result from caring for or living with an adolescent with substance use disorder.

CHAPTER TWO

Literature Review

Theoretical Framework

There are several theories concerning substance use and its influence on the family. Out of these, this research will base on two of them. These include family system theory, and transactional model.

Family system theory (Constantine, 1986).

Family systems theory emerged out of the biologically based general systems theory. A system is defined as a bounded set of interrelated elements exhibiting coherent behavior as a trait (Constantine, 1986). Another definition is an assemblage of objects related to each other by some regular interaction or interdependence (Webster, 1983). Families are considered systems because they are made up of interrelated elements or objectives, they exhibit coherent behaviors, they have regular interactions, and they are interdependent on one another.

General systems theory focuses on how the parts of a system interact with one another. In general systems theory, an individual cell is one example of a system, whereas, in family systems theory the family is essentially its own system (Lander, Howsare, & Bryne, 2013). According to Lander, Howsare, & Bryne, the key concepts in both theories are homeostasis, feedback and boundaries. However, for the purpose of this study, emphases will be on the concept of Homeostasis. Homeostasis refers to the idea that it is the tendency of a system to seek stability and equilibrium (Brown & Christensen, 1986). The concept of homeostasis is key to understanding the effect of

SUDs on the family in that each family member tends to function in such a way that keeps the whole system in balance even if it is not healthy for specific individuals. This concept well explains why and how relatives with adolescent substance users develop psychological disorders as well as being burdened both financially and socially in order to keep the family stable. Also, for instance, a latency-age child may cover up her dad's drinking by cleaning up after him if he is sick, getting him into bed after he passes out, and minimizing his drinking to her mother (Lander, Howsare, & Bryne, 2013). They claimed, her efforts allow his SUD to continue with limited consequence and keep the family system at relative equilibrium by minimizing fighting between the mother and father.

Transactional model (Lazarus and Folkman, 1984).

Caregiver burden is the stress which is perceived by caregivers due to the home or rehab care situation. This subjective burden is one of the most important predictors for negative outcomes of the care situation – for the caregivers themselves as well as for the one who requires care.

Caregivers are all persons who support and help a person in need of care regularly because of personal not professional reasons. That means every kind of help and support. It doesn't need to be health care in the narrow sense. The caregiver doesn't need to be akin with the person they support. Often friends, neighbors or acquaintances provide support, too. However, for the purpose of this study caregivers refer to only family members who provide care for their relative.

From a scientific perspective, caregiver burden is a theoretical construct. The conceptual basis for the appraisal of the care situation is the transactional model of Lazarus and Folkman (1984). The subjective evaluation of the care situation (stressor) by the caregivers is critical for the development and maintenance of subjective burden.

According to the Transactional Model, people deal with stressful situations by appraisals of stressor and resources. The primary appraisal deals with the individual meaning of the specific stressor, which is the care situation in this case. The secondary appraisal analyzes their own abilities and resources to cope with that situation. On this basis, the individual coping efforts are used to deal with the stressful situation. As per Carver (1997) these efforts can focus on problem management or emotional regulation. Dysfunctional strategies are possible, too. Studies (Cooper, Katona, Orrell, & Livingston, 2008; Di Mattei, Prunas, Novella, Marcone, Cappa, & Sarno, 2008) found that a high caregiver burden often comes along with dysfunctional strategies thus activities which don't solve the problem but worsen it (e.g. self-criticism, substance abuse). Juxtaposing this theory to caregiver's burden, presupposes that, a relative of a substance user may develop psychological disorder such depression, anxiety and stress if inappropriate coping skills are developed (such as blaming oneself).

Related Studies

Psychological wellbeing and distress among family members (caregivers)

The negative impact of caregiving on the mental health of caregivers has been substantiated in a number of literatures. For Instance, the Victorian Caregivers Program piloted a population-based research to ascertain the variances in well-being between caregivers, as a group, and non-caregivers (Schofield, Bloch, Herrman, Murphy, Nankervis & Singh, 1998). The authors reported less life satisfaction, less positive affect, and more negative affect among caregivers compared with non-caregivers, regardless of age or marital status. In data collected by the Australian Bureau of Statistics (ABS), approximately 30% of caregivers reported that their well-being had been affected by caregiving, and that they were often worried or depressed (ABS, 1998). Also, in a

review of 41 studies published between 1990 and 1995 on the effects on caregivers of care recipients with mental illness, it was reported that increased levels of psychiatric morbidity were generally found, with elevated levels of depression being a consistent finding (Schultz, O'Brien, Bookwala & Fleissner, 1995).

Also, two meta-studies based on 228 (mostly US) papers, examined the relationships between caregiving and well-being (Pinquart & Sörensen, 2003a, 2003b). The studies show, first, that researchers typically adopt a broad definition and measurement of "caregiving", encompassing all forms of assistance to persons in need of help because of poor health. Further, the studies show that a large literature relates caregiving to depression and psychological distress, and that a few papers link caregiving to reduced subjective well-being. There is marked between-study variability in these effects, which the authors explain by the fact that most studies are based on limited, non-representative convenience samples.

The meta-studies show that caregiving typically has more adverse emotional impacts on women and the elderly (ibid.). They propose that women are more affected by caregiving than men because women provide more care in general and more personal care especially, and because they more often experience social pressures to provide care. The authors relate more detrimental effects of caregiving in older age to fewer psychological, physical, and financial resources, and fewer stress-protective roles and activities. Cummins and Hughes (2007) also found in their study that wellbeing decreases linearly as the number of hours spent caring increases and caregivers are more likely to be experiencing chronic pain. They also established that primary caregivers are at considerable risk of high stress, clinical depression, and abnormally low subjective quality of life.

Schulz & Sherwood (2008) also established that the detrimental physical effects of caregiving are generally less intensive than the psychological effects.

However, the assertion that caregiving has positive aspects is supported by a number of studies. These studies show that, although caregiving relates to emotional distress, it may at the same time be associated with increasing self-esteem, meaning, engagement, and pride (Kramer, 1997; Marks, 1998; Marks & Lambert, 1998; Marks et al., 2002). These studies define care either as personal care or both practical and personal care to older persons. Some studies have also examined the positive aspects of caring, such as the satisfaction experienced by caregivers in performing their caring role (Savage & Bailey, 2004). Essential positive aspects of the caregiving role include giving pleasure to the care recipient, maintaining the dignity and maximizing the potential of the care recipient, experiencing enhanced relationships, meeting perceived responsibilities, sharing mutual love and support, and developing personally (Nolan, Grant & Keady, 1996; Lundh, 1999). Also, in the Victorian Caregivers Program research, 84% of caregivers indicated that they receive a great deal of satisfaction from caring (Schofield et al., 1998). Caregivers in overseas research also described some benefits of caring, such as a sense of closeness to the care recipient, and enhanced self-esteem (Ashworth & Baker, 2000). In the ABS data, 33% of caregivers indicated that their relationship with the care recipient was closer as a result of their caregiving role (ABS, 1998). It is likely that these positive aspects of caring would impact positively on the caregiver's overall mental health.

Stigma among family members with mentally ill relative

Stigma is a frequent side dish of mental illness leading to a number of disadvantageous consequences. Stigma not only harms many people with mental illness and/or substance abuse, it may injure family members who are associated with these individuals, the mentally ill. Goffman (1963) called this courtesy stigma; the negative impact that results from association with a person who is marked by a stigma. Most research into the stigma connected to mental illness was conducted in the developed world. So far, few data exist on countries in sub-Saharan Africa and Ghana. Common stereotypes about people with mental illness seem to parallel those with substance abuse and include dangerousness and blame (Angermeyer, Matschinger, & Corrigan, in press; Link, Phelan et al., 1999). Generally, research shows that psychiatric disorders are viewed as more blameworthy than physical health conditions like cancer and heart disease (Corrigan, River et al., 1999; Weiner, Magnusson, & Perry, 1988).

In Ghana, a study by Barke, Nyarko and Klecha (2011) on stigma of mental illness reported high levels of stigma within the urban population. The study was conducted using a convenience sample of 403 subjects (210 men, mean age 32.4 ± 12.3 years) from urban regions in Accra, Cape Coast and Pantang. The Community Attitudes towards the Mentally Ill (CAMI) questionnaire was used. In addition, 105 patients (75 men, mean age 35.9 ± 11.0 years) of Ghana's three psychiatric hospitals (Accra Psychiatry Hospital, Ankaful Hospital, and Pantang Hospital) answered the Perceived Stigma and Discrimination Scale. The study reported that a higher level of education was associated with more positive attitudes on all subscales (Authoritarianism, Social Restrictiveness, Benevolence and Acceptance of Community Based Mental Health Services).

The study used mixed methods and was nested in a randomized controlled trial of community care for people with schizophrenia. Between November 2009 and October 2010, data on caregiver stigma and functional outcomes were collected from a sample of 282 PLS–caregiver dyads. In addition, 36 in-depth-interviews were conducted with caregivers. Quantitative findings indicate that 'high caregiver stigma' was reported by a significant minority of caregivers (21%) and that many felt uncomfortable to disclose their family member's condition (45%).

In a recent study on courtesy stigma, Koschorke et al., (2014) conducted a study on the experiences of stigma and discrimination faced by family caregivers of people with schizophrenia in India. The aim of the present paper was to describe caregivers' own experiences of stigma, and the factors influencing these experiences in India. The nested study on stigma used cross-sectional data collected at the point of entry into the trial and employed a mixed-methods approach, combining quantitative data from all Primary lateral sclerosis (PLS) and caregivers in the trial and qualitative data from a purposively selected subsample of PLS and caregivers. Between November 2009 and October 2010, data on caregiver stigma and functional outcomes were collected from a sample of 282 PLS-caregiver dyads. In addition, 36 in-depth-interviews were conducted with caregivers.

Quantitative data on caregiver stigma were collected using an adapted version of the stigma section of the Family Interview Schedule, which had been developed for the International Study of Schizophrenia. It comprised of 10 items on stigma experience (e.g. 'you worried that your neighbors would treat you differently') that were scored from 'not at all' to 'a lot' (scores 0-3). In addition, caregivers rated their willingness to disclose their relative's illness on a single item scored

on a Likert scale ranging from 1-5 ('In general, how comfortable would you feel talking to a friend or family member about your ill family member's mental health, for example telling them he/she has a mental health diagnosis and how it affects him/her and the family?')

Also, caregivers' knowledge about schizophrenia was measured using the Knowledge about Schizophrenia Interview (KASI) (Barrowclough et al., 1987), which assesses six domains of understanding: Knowledge about diagnosis, symptomatology, aetiology, medication, course and prognosis and management. They followed a standardized process of translation and validation of tools. Measures on stigma underwent an additional process of validation through focus group discussions involving PLS, caregiver and mental health staff representatives. Three items of the Family Interview Schedule (two on coping strategies and one on general illness impact) were removed to ensure all items used related directly to experiences of stigma.

Quantitative findings indicate that 'high caregiver stigma' was reported by a significant minority of caregivers (21%) and that many felt uncomfortable to disclose their family member's condition (45%). Caregiver stigma was independently associated with higher levels of positive symptoms of schizophrenia, higher levels of disability, younger PLS age, household education at secondary school level and research site. In their study, knowledge about schizophrenia was not associated with caregiver stigma. Qualitative data illustrate the various ways in which stigma affected the lives of family caregivers and reveal relevant links between caregiver-stigma related themes ('others finding out', 'negative reactions' and 'negative feelings and views about the self') and other themes in the data.

Furthermore, the qualitative interviews illustrated that for those caregivers experiencing stigma, its impact on relationships and emotional wellbeing was often very high. Particularly salient were experiences of being blamed, and critical comments and avoidance by others, which were linked to emotional distress, hopelessness and social withdrawal. Also important, and connected to worry and intra-familial conflict, were concerns about 'others finding out' and its impact on relationships and marital prospects of the PLS and other family members. Notably, they also suggested that worries about what might happen (anticipated stigma), or might be happening (e.g., others gossiping or looking down upon the family; perceived stigma) and attempts to prevent loss of status for the whole family featured more prominently than the actual experience of negative reactions--as has been found for PLS' experiences.

In a related study, Parka and Seo (2016) investigated care burden of parents of adult children with mental illness: The role of associative stigma. The aim of the study was to analyze the mediator effect of associative stigma on relationships between the main stressors, psychiatric symptoms and lowered social function of offspring with mental illness, assessed by the parents, and their care burden.

The participants of their study were 215 parents (25.6% fathers, 74.4% mothers) caring for an adult child with severe mental illness. The parents had a mean ± SD age of 60.68 ± 13.58 years. The patients were diagnosed with schizophrenia (80.9%), mood disorder (16.3%), and others (1.9%). Their mean (SD) age was 38.11 (11.08) years. Of the children with mental illness, 57.9% were male (42.1% female).

For associative stigma experienced by parents, 7 items were chosen and used from Wahl and Harman's questionnaire. The degree of social stigma perceived by parents, and the effect of the stigma on social life, self-esteem, finding a place to live, willingness to acknowledge a child's mental illness, and the marriage of other offspring were measured on a 5-point scale. Cronbach alpha was 0.86. The burden parents felt while taking care of a child with mental illness was measured using the Family Burden Scale. This scale consists of objective burden (14 items) and subjective burden (16 items). The objective burden consists of items related to the financial difficulties, family conflicts, interpersonal problems, and limitation of social life. The subjective burden consists of items such as insecurity about the future, helplessness, guilt, and sadness. Each item is rated on a 5-point scale, from 'completely not true' to 'completely true'. Cronbach alpha was 0.93 (objective) and 0.90 (subjective), respectively. The psychiatric symptoms of offspring with mental illness were evaluated using the Burden of Common Problem Behaviors. This scale allows family to evaluate problem behavior, including positive symptoms and negative symptoms of the patient, and is composed of a 5-point scale. Cronbach alpha was 0.92.

Parka and Seo findings suggest that the symptoms and function of offspring directly affect the care burden of parents, but also have an indirect effect mediated by associative stigma. Among the predictor variables, they suggested that symptoms had a greater effect on the subjective/objective burden and associative stigma than social function.

Singh, Mattoo, and Grover (2016) conducted a study in North India to examined stigma and its correlates among caregivers of schizophrenia. The aim of the study was to investigate stigma experienced by caregivers of patients with schizophrenia. One hundred caregivers of patients with

schizophrenia were evaluated on Stigma scale for care givers of people with mental illness (CPMI), Explanatory model interview catalogue stigma scale(EMIC), General health questionnaire-12 (GHQ), Self-report attitude towards medications questionnaire and Knowledge of mental illness scale (KMI).

On CPMI the score was higher for affective component (2.37, ±0.5) than for cognitive (1.9 ±0.9) and behavioral (1.8 ±0.6) components. More than half of caregivers 'agreeing' or 'strongly agreeing' on 20 out of 22 items of CPMI indicated high level of stigma. On EMIC the stigma score was 21.7 ±6.3. According to the study higher level of affiliate and/or associative stigma was associated with shorter duration of illness and treatment, shorter duration of being in the caregiver role, younger, female and non-earning caregivers, prescription of higher number of pills, caregivers wholes soften accompany the patient to the hospital and caregivers experienced more psychological morbidity. Findings from their study reported that caregivers of patients with schizophrenia experienced substantial stigma.

Prior to the study by Singh, Mattoo, and Grover (2016) A survey from United States reported that 56% family members of mentally ill report experiencing stigma (Angermeyer et al., 2003). In another study 70% and 43% caregivers respectively believed that most people devalued those mentally ill, and their families (Struening et al., 2001). In an Australian study 30% caregivers reported reluctance to reveal their mental health caregiver's status to people outside their close family and friends. The reason given was the experience of negative, hurtful and offensive attitudes from the media (49.0%), the general population (49.5%), as also the mental illness service providers. Health professionals had treated them/their ill relative 'differently' (43.9%), and 'as less

competent' (43.8%), and they were told to lower their expectations (40.6%) (Mental Health Council of Australia, 2011).

Other forms of burden experienced among caregivers

A number of studies have documented the physical, emotional, social and financial burden experienced by families who live with and care for patients with mental illness (Chou, LaMontagne, & Hepworth, 1999; Schene, 1990). Hypertension, heart attacks, ulcers, and anaemia have all been found to occur more frequently among these caregivers than among age-matched controls (Pruchno & Potashnik, 1989). Generalized somatic complaints such as chronic fatigue, sleeplessness and weight change are well known within the burden literature (Chou, 1997). Numerous studies have looked specifically at the high risk among caregivers for depression. Tennstedt et al. (1992) reported that one third of the 415 caregivers who cared for physically impaired elders experienced symptoms of depression. Cohen and Eisdorfer (1988) found that 55% of the primary caregivers of mental illness experienced clinically significant levels of depression as measured by the Beck Self-Report Depression Scale.

According to Sanuade and Boatemaa (2015), due to the growing elderly population in Ghana, the high cost of care and low coverage of the National Health Insurance Scheme, demands for family caregiving have become more imperative in Ghana than ever before. Many caregivers experience high burdens, yet literature on caregiving in Ghana is lacking. Hence, the study examined caregiver profiles and determinants of caregiving burden in Ghana. The study was based on a cross-sectional design. Sanuade and Boatemaa (2015) used data from Wave 1 of the World Health Organization

(WHO) Study on Global Ageing and Adult Health (2007-2008). A total of 238 caregivers were analysed in the study. The burden of caregiving was measured using the WHO Impact of Caregiving Scale (2007). Independent sample t-tests, correlations and analysis of variance were used to investigate associations between background characteristics and the burden of caregiving. A linear regression was used to examine determinants of the burden of caregiving. The mean age of caregivers was 61 years (standard deviation 14.5), and the male to female ratio was approximately equal. On average, approximately two adults per household required care. Less than five percent of caregivers received financial, emotional, health, physical and personal care support. Place of residence, provision of financial, health and physical support to care recipients, and receipt of financial, physical and health support were significant determinants of the burden of caregiving.

The study found a mismatch between the number of people needing care and the number of people providing care. In conclusion, it was stated that in order to improve the health of caregivers and care recipients, there is a need to provide financial support for caregivers. In addition, pro-caregiving government programmes and policies should be established.

Providing care to patients with mental illness may also have deleterious social consequences (Brody, 1989). Restriction of social activities is the most frequently noted negative consequence of caring for mentally impaired patients. Caregiving activities may gradually expand to a point where they have restructured and largely taken over the life of the caregiver. This may displace or reduce the caregiver's previous activities and involvement. Restriction in social activities may isolate caregivers from previous, current, and even potential sources of social support. A literature review showed that caregivers feel alone in their caregiving responsibilities because their social lives are curtailed. They also feel insufficient social support (Barnes et al., 1981).

According to Chou et al. (1999), 42–56% of caregivers experience a decrease in socialization. Previous studies also showed that high levels of burden with inadequate support produced psychiatric symptoms and affected caregivers' physical and emotional health (Quinn et al., 1986). According to Jutras and Veilleux (1991), in order to provide care for an elderly person, 20% of families had cut back on paid hours of work, 29% rearranged their schedules and about 20% took time off without pay. Other researchers also report that financial problems occur within the family in the care of patients with mental illness (ranging from 11% to 42%) (Chou et al., 1999; Reinhard, 1994). Given the general review of literature, research has documented that the burden of providing care to mentally ill patients can make the caregivers themselves more vulnerable to physical, emotional, financial and social problems.

In a more recent study, Geriani, Savithry, Shivakumar, Kanchan (2015) investigated the burden of care on caregivers of schizophrenia patients. The aim of the study was to explore the relation between burdens of care on then caregivers of schizophrenic patients with various psychological parameters including their coping strategies, personality type, overall quality of life and social-demographic details. The participants included in the study (n=110) were administered a socio-demographic data sheet and questionnaires to assess their personality type, burden, quality of life, and coping mechanisms of having a schizophrenic in the family. These questionnaires were administered in individual setting. Findings from their study revealed that most of the caregivers were females. The caregivers were observed to have moderate and high levels of burden. They further revealed that burden on the caregivers showed a significant correlation with psychoticism and their overall quality of life.

An earlier study by Vasudeva, Sekhar, and Rao (2013) also reported higher levels of burden in caregivers of schizophrenia patients as compared to those of bipolar disorder patients, especially in terms of external support, caregiver routine and relationship with other family members and friends. A study by Rudnick (2004) shows the importance of participatory research in the field of mental health particularly to explore the burden on caregivers. Gutierrez-Maldonado, Caqueo-Urizar and Kavanagh (2005) found high levels of burden associated with factors like less education and young age of the schizophrenia patient. Similarly, Juvang, Lambert, and Lambert (2007) in a study conducted in China concluded that the age of the caregivers was positively correlated to their burden whereas the education level exhibited a negative correlation.

Some studies done in Ghana on substance use

A number of studies have been conducted on substance use in Ghana. One of the first study on substance use in Ghana was conducted by Amarquaye (1967); he observed that Indian hemp had been accessible for some years in Ghana and was locally grown. Hundred (100) males were randomly selected from Accra Mental Hospital for the study. The participants for the study were between the ages of 10 and 25 years. Majority of the substance users in the study were unmarried men introduced to marijuana by friends. The study included high school students and college students from lower socioeconomic backgrounds, as well as tailors, motor mechanics, drivers, police officers, and prisoners. The subjects' educational level ranged from illiteracy to quite a lot of years of tertiary. This set of people was ethnically diverse, notwithstanding that the Akans far outnumbered any other cultural group. A limited number of non-Ghanaians from Liberia, Niger, Nigeria, Togo, and Lebanon were also amongst those in the sample. They were interviewed by the

author to determine how many had ever smoked marijuana. It was observed that 25% were vivacious smokers at the event of their admission or had in a point in time used it.

The study cited a number of cases from patient records of the unusual mental states reported by patients when using marijuana. A 25-year-old patient reported restlessness, aggressiveness, violence, and verbosity at first commencement. Elation, exhilaration, and a gratifying sensation resembling drunkenness were among the well-known effects recorded. A laborer mentioned in the study found the euphoria effect worthwhile and refreshed himself with marijuana before starting his nightly rounds; he eventually developed a typical marijuana psychosis. Other effects germane to use of marijuana were easing of moral control, disorderly behaviour, moods of inactiveness and depersonalization, and thoughts of suicide, as well as such physical phenomena as reddening of the eyes, excessive lachrymation, and tachycardia. During the era of this research, possession trafficking, usage, and cultivation of marijuana in Ghana were all illegal, but the study's author urged that a mass prevention and education program be established to combat marijuana abuse.

The following work was conducted by Akyeah-Ofori and Lewis (1972). The study centred on questionnaires administered to 52 pharmacology students at the University of Ghana Medical School in the month of December, 1970. The questionnaire included questions regarding students' usage of amphetamine-like drugs, barbiturates, amphetamines and opioids, marijuana, and lysergic acid diethylamide (LSD), as well as caffeine, alcohol, and cigarettes. The students fell between the ages of 23 and 27 years. The survey involved five females. The research shown that not a single person of the students had any involvement using opioids, cocaine, or LSD. Also, it was revealed

that 9 students had consumed marijuana for an average of a half year. Only 2 students had consumed marijuana at the time of the research, and none claimed to have consumed it regularly. Again, 10 students had used barbiturates, but only 3 had taken them in the previous twelve months. Amphetamine usage was more dominant; the research showed that more than half the students had some experience with amphetamines and a quarter had consumed them throughout the previous year. Four of them had consumed amphetamines frequently, although 2 students had consumed them for 2 years. The research further found too much usage of caffeine and alcohol by half the students.

In conclusion, the researchers recommended that amphetamine and caffeine were consumed often to assist the students in their academic work, hence, the authorities should control the importation and transaction of amphetamine and connected drugs. The research further concluded that the usage of LSD, cocaine, or opioids was not an issue among students.

In 1990, Nortey and Senah conducted a national epidemiological study of drug abuse among Ghanaian adolescence that concentrated on methods of consumption of substance use in relation to the different groupings of consumers. The naming of personality types involved with substance use, the mechanisms and places of supply, and, lastly, the dynamics which produce changes in the consumption of substances. Participants between the ages of twelve and twenty-four years were selected according to the distribution of the Ghana census information as of 1970. Questionnaires were distributed to the 3 zones in which the nation had been divided for purposes of data investigation.

Countrywide, the subjects for the study were 71.3% male (6,986) and 26.6% female (2,608). A little less than 84% reported they were single, while 16.4% were reported to be married. The research showed that alcoholic drinks, tobacco and coffee were consumed extensively. The study's investigators alleged that the amount of usage for marijuana, valium, librium, and mandrax (i.e., methaqualone) were substantial enough to worth interventionist measures. The amount of cocaine usage, although low, added weight to the researchers' recommendation for decisive action. The study concluded that the subjects' perception of drugs were higher than their actual rate of usage. To dampen substance use, the research encouraged institutionalization of drug education.

Recent studies have been on substance use and risky sexual behavior (Asante, Meyer-Weitz & Peterson, 2014), substance abuse among senior high school students (Nkyi, 2014), socioeconomic differences in alcohol and drug use among Ghanaian adolescents (Doku, Koivusilta & Rimpelä, 2012), drug abuse and its mental health and health consequences among addicts (Affinnih, 1999) Common focuses have been on substance use and risky sexual behavior, alcohol and drug use problems and policy (Duku, 2012). The studies have focused on different populations such as children, adolescents, and street connected youth (Asante, Peterson & Meyer-Weitz 2014; Nkyi, 2014).

However, a more recent study by Addo, Mainoo, Dapaah and Babayara (2016) shed light on the prevalence of substance use among Ghanaian adolescents experiencing parental divorce. Using a cross-sectional nonexperimental design and a convenience sample of 240 adolescents between the

ages of 14 and 19 years, the study investigated the prevalence of substance use among adolescents experiencing parental divorce in Ghana. The relative influence of factors such as adolescents' sex, class level, age at parental divorce, and years of experience with parental divorce on the use of substances were also examined.

The Adolescent Substance Use Checklist (ASUC) was used during class hours. Descriptive, bivariate and multivariate analyses were conducted. The results obtained from the study showed that lifetime ever use of substances was 48.8% (N=117), with alcohol being the common used substance by adolescents. Adolescent males were as likely as females to use substances (OR=1.37, CI=.807; –2.325). A significant relationship was found between class level, age at parental divorce, and substance use ($p < .05$ for both relationships). These two risk factors also proved to be significant predictors of substance use.

Another related study conducted in Ghana is one by Quinn (2007). The aim of the study was to explore the debate on beliefs and community responses to mental illness in Ghana. Materials used for the study were semi-structured interviews which involved 80 family caregivers across four sites in Ghana to explore the themes of beliefs, attitudes, carer burden and support. Findings from the study suggested a greater reliance on culturally specific explanations of mental illness in rural areas, combined with more acceptance and support, particularly in one rural area with strong traditional belief systems. It also suggests the need to develop integrated mental health services, which reflect these differing beliefs.

The review revealed that there is a dearth of information concerning the impact adolescent substance use disorders on the family.

Rationale for the study

Review of literature suggests that there is a scanty investigation on the effects of adolescent substance use on the family. In Ghana this area of study is in its infancy and in general there is a dearth of information about the impact of adolescent substance use disorders on the family. Hence this study explores this inadequacies of literature.

Statement of Hypotheses

(1) a. Family members of adolescents without substance use would experience better psychological wellbeing as compared with family members of adolescents with substance use (substance use disorder).

(1) b. Family members of adolescents without substance use (substance disorder) would experience lesser psychological distress as compared with family members of adolescents with substance use (substance use disorder).

(2a) There would be a significant negative correlation between psychological wellbeing and psychological distress, family burden and stigma.

(2b) There would be a significant negative correlation between psychological wellbeing and, family burden.

(2c) There would be a significant negative correlation between psychological wellbeing and stigma.

(3) Families with SUD relatives would feel stigmatized as compared with families of non-substance users

(4) Family members with a SUD relative would experience more burden as compared with family members with no SUD relative.

(5) There would be significant differences in psychological wellbeing among family members with substance use disorders based on educational differences.

(6) There would be significant differences in psychological distress, family burden and stigma based on sex of family members with substance use disorders.

(7) Families with substance use disorders would report more psychological distress than the other mental health issues such as family burden and stigma.

Operational definition of terms

For the purposes of this study, the following terms are used such that:

1. Adolescence: refers to the period of life from age 13 to early 20s (23 years). This was based on Erikson's psychosocial stages of development (Erikson, 1950; Erikson & Erikson 1997).
2. Family members: refers to individuals who are blood related to an adolescent
3. Burden: refers to financial burden, disruption of routine family activities, disruption of the family leisure, disruption of the family interaction, effect on the physical health of others and effect on mental health of others
4. Caregiver: relatives who provide care for their family member.

CHAPTER THREE

Methodology

Introduction

This chapter discusses the methodology of the study. It includes information on the population, sample, and sampling technique, measures used in the study, the research design and procedure of the study.

Research Setting, Population and Participants

The study was conducted in an urban setting, the Greater-Accra Region, the capital city of Ghana. The Greater-Accra Region is the smallest of the 10 administrative regions of Ghana in terms of area, occupying a total land surface of 3,245 square kilometers or 1.4 per cent of the total land area of Ghana (Government of Ghana, 2016). It is the second most populated region, after the Ashanti Region, with a population of 4,010,054 in 2010, accounting for 15.4 percent of Ghana's total population.

This urban setting comprised of individuals from diverse socioeconomic backgrounds: people from affluent, average and low income homes. It also consists of several ethnic and religious groups. This study was based on two groups: (1) family members of adolescent with substance use and (2) families of adolescents without substance use.

The study was conducted at two private rehabilitation facilities: house of Saint Francis and Home of Compassion; and two public institutions: the Addictive unit at Korle-Bu Teaching Hospital and Pantang Psychiatric Hospital. These sites were selected based on the fact of its popularity in terms of substance use treatment, convenience, and also there is a large number of adolescent substance users accommodated in these facilities.

Study Design and Sampling Technique

This study was conducted as a cross-sectional survey design. Employing this design allows for different family members at different ages with different educational background to be assessed at the same time.

Jensen and Shumway (2010) refer to sampling as the process used to select a portion of the population for a study (as cited in Gomez & Jones, 2010). The study employed the non-probability sampling technique in selecting the participants for the study. Purposive sampling technique was used to recruit the appropriate participants required for the study since the study wanted to examine the influence of adolescent substance use (substance use disorder) on the family's mental health. Family members of adolescents without substance use were also conveniently sampled from the community based on their availability and wiliness to participate in the study.

Inclusion and Exclusion Criteria

Inclusion Criteria

Participants who were eligible for the study included: (1) individuals who identified themselves as a family member of an adolescent with substance use or substance use disorder, and (2) individuals who identified themselves as a family member of an adolescent with no substance use disorder.

Exclusion Criteria

The exclusion criteria involved: (1) family members of non-adolescents and (2) family members of both adolescent with and without substance use disorder who were not willing to participate in the study.

Measuring Instruments

Psychosocial questionnaires were administered to the family of both substance users and non-substance users to assess their psychosocial wellbeing. Caregiver (family) burden was measured with the Caregiver Burden Inventory, Zarit Burden Inventory. The Zarit Burden Inventory is a popular caregiver self-report measure used by many health care agencies. It was originated as a 29-item inventory (Zarit, Reever & Bach-Peterson, 1980). The revised version contains 22 items. Each item on the inventory is a statement which the caregiver is asked to endorse using a 5-point scale. Response options range from 0 (never) to 4 (Nearly Always).

The factor structure of the Zarit Burden Inventory is somewhat unclear. A number of researchers have somewhat suggested different models, but the most frequently mentioned is the two-factor model, addressing personal strain and role strain. This model is endorsed by Herbert, Bravo and Preville (2000), who provide the most frequently cited information on reliability and validity for Zarit Burden Inventory. This study looked at a sample of 312 caregivers from the Canadian Study of Health and Aging. Results showed that the measure had good internal consistency reliability, with a Cronbach's alpha coefficient of .92, which was not significantly improved by the removal of any of the 22 items.

The Mental Health Inventory (MHI) was used to measure the psychological wellbeing and psychological distress of the family. It was developed as part of the National Health Insurance Study (Veit & Ware, 1983) and has been studied extensively in a variety of populations. This The MHI is made up of 38 items. All of the 38 MHI items, except two, are scored on a six-point scale

(range 1-6). Items 9 and 28 are the exception, each scored on a five-point scale (range 1-5). The MHI could also be aggregated into: (1) six subscales—Anxiety, Depression, Loss of Behavioural / Emotional control, General Positive Affect, Emotional Ties and Life satisfaction; (2) Two global scales—Psychological Distress and Psychological Well-being; and (3) a global Mental Health index score. When deriving subscale scores, individual item scoring depends on two things: (1) whether higher scores on the coded values of the item responses indicate more frequent or intense occurrence of favourable or unfavourable mental health symptoms; and (2) whether the item belongs to a positively or negatively scored mental health subscale. All subscales are scored so higher scores indicate more of the construct named by the subscale label. Thus, higher scores on three subscales indicate positive states of mental health (General Positive Affect, Emotional Ties, Life Satisfaction); higher scores on the other three subscales indicate negative states of mental health (Anxiety, Depression, Loss of Behavioural/Emotional Control). The aim of item scoring is to ensure that higher scores on each item reflect more of the construct named by the scale to which it belongs. To illustrate this aspect of the MHI, consider a family member who responds to item 4 with the value '6': Item 4. During the past month, how much of the time have you felt that the future looks hopeful and promising? Tick one. (1) All of the time, (2) Most of the time, (3) A good bit of the time, (4) some of the time, (5) A little of the time and (6) None of the time. The family member's response indicates that this favourable experience occurred very infrequently during the past month. Item 4 forms a component of the subscale General Positive Affect, a positively scored subscale (i.e., Higher scores indicate better mental health).

Administration time is approximately 5-10 minutes for the full-length version and 2-3 minutes for the abbreviated version. The MHI is a structured, self-report questionnaire that the family member

can generally complete with little or no intervention from an interviewer. However, participants with visual or upper extremity impairments may need to have the MHI administered as an interview. According to the National Multiple Sclerosis Society, the Mental Health Inventory has a reported .93 Cronbach alpha rating whereas its abbreviated version has .82. This test is well-known and has been field tested in extensive populations. Also, the Mental Health Inventory showed a high correlation rating with MSQLI, or Multiple Sclerosis Quality of Life Inventory.

In addition, family stigma scale was also used to assess the stigma of the family. It consists of 7-items on a 4-point Likert scale from (1) *strongly disagree* to (4) *strongly agree*. The referent was changed to people with substance use disorder. A sample item was "Most people look down on families that have a member who has Substance use disorder". Struening, Perlick, Link, Hellman, Herman and Sirey (2001) reported a satisfactory internal consistency (Cronbach's alpha = .86).

Pilot Study

A pilot study was conducted. The aim of the pilot study is to solve ambiguity and to check validity, reliability and feasibility of the instruments or measures adopted (Creswell, 2003). This was done prior to collection of data. In the present study, the questionnaires were administered to twelve (12) family members of both adolescent substance users and non-substance users who were readily available from Korle-Bu teaching hospital. These participants were not included in the main study. The Cronbach's alpha (Internal Consistency) was calculated for each of the scales and their subscales. The computed Cronbach's alpha coefficients were 0.80 for Mental Health Scale, 0.79 for psychological wellbeing scale, 0.85 for psychological distress scale, 0.90 for family burden scale and 0.81 for stigma.

Procedure for Data Collection

A letter of introduction was sought from the Department of Psychology in order to seek for permission from the appropriate authorities who were involved in this study. Permission was sought from the authorities of the Pantang psychiatric hospital and the addiction unit at Korle-Bu Teaching Hospital; and two (2) rehab centers: House of Saint Francis and compassion home, which are all within the Greater Accra Municipality. One research assistant who was fluent and knowledgeable of the spoken language (Ga) of the research participants was recruited and trained for the study. He is a graduate from university of Ghana with a year of undergrad research experience.

Participants were recruited after obtaining written informed consent. Questionnaires were administered to family members of substance users during their biweekly visit to relatives. Again, questionnaires were also administered to family members of adolescents without substance use disorder who were conveniently sampled from the Madina community based on their availability and wiliness to participate in the study. Participants read and answered the questionnaires on their own. However, a number of questionnaires were read out to participants who had difficulty - reading. Each questionnaire took between ten (10) and twenty (20) minutes to complete.

Confidentiality was assured by ensuring anonymity thus, preventing relatives from being identified as individuals. Answered questionnaires were also kept at a safe location. Participation and withdrawal for this study was voluntary. Also, there was limited or no risk to participating in this study. The data collection at Pantang, and the other two rehab centers lasted for three months due

to their visiting time schedule (family members visited twice every month) whereas the data collection at Korle-Bu lasted for one month. Two and a half months was also used to collect data from relatives of adolescent without substance use disorder. Due to the duration it took for the study, participants were asked on subsequent data collection whether they had already participated in the study or not. If response was yes, they were excluded from the study in order to avoid double data entry.

Ethical Considerations

Ethical principles governing the use of human subjects were considered in this study. Researcher and all research participants adhered to the codes of ethics. Research ethics is "concerned to which extent the researcher is ethically and morally responsible to his/her participants, the research sponsor, the general public and his/her own beliefs" (Kitchin & Tate, 2000, p.35). The key ethical issues here include anonymity, confidentiality and informed consent. In research that involves humans, ethical and moral aspects are relevant aspects to be considered (Christensen & James, 2000). Hence, an approval was sought from the Institutional Review Board (IRB) which is situated at the Institute of Statistical, Social and Economic Research (ISSER), University of Ghana. The IRB, has been formally designated to approve, monitor, and review biomedical and behavioral research involving humans. The purpose of the IRB is to assure that appropriate steps are taken to protect the rights and welfare of humans participating as subjects in this study.

Statistical Analysis

The data was analyzed statistically using Statistical Package for Social Sciences (SPSS) version 22. The independent t-test was used to analyze the psychological wellbeing and distress among

families with/without SUD relative. Relationship between psychological wellbeing and mental health issues (psychological distress, family burden and stigma) were analyzed using the Pearson Product Moment Correlation. Psychological wellbeing among family members with substance use disorders based on educational differences was analyzed using the One-Way Analysis of Variance since there is one independent variable – education – with four levels (primary, JHS, SHS, and Tertiary). P-value less than 0.05 were considered significant.

CHAPTER FOUR

Results and Interpretation

Introduction

This chapter reports the findings of this study. In all, seven (7) hypotheses were analyzed with their appropriate statistical test. The analysis was carried out with the Statistical Package for Social Science (SPSS) version 20 and an alpha level of .05 was adopted. The results from the analyses are presented in their respective tables. Additional findings otherwise not included in the hypothesis but relevant to the discussion are briefly highlighted.

Background Information of Study Participants

In this section, the socio-demographic characteristics of the participants are presented. The socio-demographic characteristics analyzed included sex, age, faith and educational level. Eighty (80) family members of adolescents met the criteria for eligibility to participate The age range of the participants was between 26-61 years, with educational background ranging from primary school to tertiary education. Majority (n=69) of the participants were Christian. Table 1 shows summary of participants' demographic characteristics.

Table 1

Demographic Characteristics of The Participants

Variables	Frequency(F)	Percentage (%)
Family members		
Substance users	40	50.0
Non substance users	40	50.0
Sex		
Male	42	52.5
Female	38	47.75
Age (mean, SD)	40.51(10.112)	
Educational level		
Primary	6	7.5
JHS	35	43.75
SHS	20	25
Tertiary	19	23.75
Relation		
Parent	52	65.0
Sibling	18	22.5
Other	10	12.5
Faith		
Christian	69	86.2
Muslim	11	13.8

From table 1 above, it can be deduced that, forty (40) family members of adolescent with substance use and forty (40) family members without substance use were used for the study. Also, more males than females were involved in the study (52.5% and 47.5%) respectively. The mean age of participants involved in the study was 41.51 (SD = 10.112). Majority (86.2%) of the participants were Christians and (43.75%) of them with Junior High Level of Education.

Preliminary Analysis

Table 2

Cronbach Alpha's for Scales Used

Scale	α	No. of Items
Mental Health Scale	.84	38
Psychological Wellbeing Scale	.81	14
Psychological Distress Scale	.87	24
Family Burden Scale	.95	24
Stigma Scale	.81	7

From table 2 above, it can be observed that the reliability coefficients for the psychological wellbeing scale, psychological distress scale, family burden scale and stigma scale as used for the analysis are beyond .80. This means that they are very high or good in reliability and for that matter can be used for testing the various hypothesis.

Table 3

Summary of the Means, Standard Deviation, Skewness and Kurtosis (N = 80)

Scale	Min	Max	Mean	SD	Skewness	Kurtosis
Mental Health Scale						
Psychological Wellbeing Scale	39	81	61.54	16.53	-.059	-1.878
Psychological Distress Scale	37	99	63.48	23.37	.192	-1.723
Family Burden Scale	.00	36	12.80	11.89	.326	-1.321
Stigma Scale	.00	10	3.96	4.02	.081	-1.935

Table 3 above shows result of the descriptive statistics for scales used. The skewness and kurtosis scores above shows that most of the scores fall within the acceptable range of +1 and -1 which shows that they are normally distributed and thus satisfy the condition for the use of parametric tests. Few scores were observed to be above the range though, yet they did not deviate from the normality substantially.

Psychological wellbeing and distress among families with/without SUD

Hypothesis 1a stated that, "Family members of adolescents without substance use (substance disorder) would experience better psychological wellbeing as compared with family members of adolescents with substance use (substance use disorder)." This was analyzed using the Independent *t* test because there is one independent variable – family – with two levels (families with substance-use disorder and families without substance-use disorders) which was measured against one dependent variable – psychological wellbeing. Table 1 contains a summary of the results for the Independent *t* test.

Table 4

Summary of Independent *t* test for families with/without substance use disorders and psychological wellbeing

Family	N	Mean	SD	*t*	df	*p*
Family with SUD	40	45.53	4.44	38.49	78	.00*
Family without SUD	40	77.55	2.82			

* Significant at the .05 level of significance

From table 4 above, it can be observed that the mean difference between Families with substance use disorders (M = 45.53; SD = 4.44) and Families without substance use disorders (M = 77.55; SD = 2.82) on psychological wellbeing was significant [t(78) = 38.49, p = .00]. Based on this results, this results, hypothesis 1a which stated that, "Family members of adolescents without substance use (substance disorder) would experience better psychological wellbeing as compared with family members of adolescents with substance use (substance use disorder)" is supported.

Hypothesis 1b stated that, "Family members of adolescents without substance use (substance disorder) would experience lesser psychological distress as compared with family members of adolescents with substance use (substance use disorder)." This was analyzed using the Independent *t* test because there is one independent variable – family – with two levels (families with substance-use disorder and families without substance-use disorders) which was measured against one dependent variable – psychological distress. Table 2 contains a summary of the results for the Independent *t* test.

Table 5

Summary of Independent *t* test for families with/without substance use disorders and psychological distress

Family	N	Mean	SD	*t*	df	*p*
Family with SUD	40	85.63	9.34	28.05	78	.00*
Family without SUD	40	41.33	3.54			

* Significant at the .05 level of significance

From table 5 above, it can be observed that the mean difference between Families with substance use disorders (M = 85.63; SD = 9.34) and Families without substance use disorders (M = 41.33; SD = 3.54) on psychological distress is significant [t(78) = 28.05, p = .00]. Based on this results, hypothesis 1b which stated that, "Family members of adolescents without substance use (substance disorder) would experience lesser psychological distress as compared with family members of adolescents with substance use (substance use disorder)" is supported.

Relationship between Psychological Wellbeing and Mental Health Issues

Hypothesis 2a stated that, "There would to be a significant negative correlation between psychological wellbeing and psychological distress." This hypothesis was tested using the Pearson Product Moment Correlation since it seeks to establish a relationship between the four variables – psychological wellbeing, psychological distress, family burden and stigma – which are measured on an interval scale. Table 6a contains a summary of the analysis.

Table 6

Summary of Pearson Product Moment Correlation for Psychological Wellbeing and Mental Health Issues indicating Correlation Coefficients and Significant values among Families with/without Substance Use Disorder

Variable	N	Mean	SD	1	2	3	4
1. Psychological Wellbeing	80	61.54	16.53	-			
2. Psychological Distress	80	63.48	23.37	-.910 *	-		
3. Family Burden	80	12.80	11.89	-.874 *	.926*	-	
4. Stigma	80	3.96	4.02	-.968*	.941*	.914*	-

* Significant at the .05 level of significance

From tables 6 above, it can be observed that the correlation coefficient for the variables – psychological wellbeing and Psychological Distress – is -.91 which indicates a strong negative correlation. This means that, as one variable rises, the other decreases. For that matter, as psychological wellbeing among families with or without an adolescent relative with substance use disorder increases, their psychological distress decreases. The inverse is also true, whereby as psychological distress among families with or without an adolescent relative with substance use disorder increases, their psychological wellbeing decreases.

Hypothesis 2b stated that, "There would to be a significant negative correlation between psychological wellbeing and family burden." Comparing psychological wellbeing and family burden, it can be observed from Table 6 that the correlation coefficient for the variables is -.874

which indicates a strong negative correlation. This means that, as one variable rises, the other decreases. For that matter, as psychological wellbeing among families with or without an adolescent relative with substance use disorder increases, their family burden decreases. The inverse is also true, whereby as family burden among families with or without an adolescent relative with substance use disorder increases, their psychological wellbeing decreases.

Hypothesis 2c stated that, "There would to be a significant negative correlation between psychological wellbeing and and stigma." Furthermore, it can be observed that, the correlation coefficient for the variables – psychological wellbeing and Stigma – is -.968 which indicates a strong negative correlation. This means that, as one variable rises, the other decreases. For that matter, as psychological wellbeing among families with or without an adolescent relative with substance use disorder increases, their perception of stigma decreases. The inverse is also true, whereby as perception of stigma among families with or without an adolescent relative with substance use disorder increases, their psychological wellbeing decreases.

Moreover, it can be observed that the correlation coefficient for Family Burden and Psychological Distress – is .926 which indicates a strong positive correlation. This means that, as one variable rises, the other rises. For that matter, as Family burden among families with or without an adolescent relative with substance use disorder increases, their psychological distress also rises.

In addition to that, it can be observed that the correlation coefficient for Stigma and Psychological Distress is .941 which indicates a strong positive correlation. This means that, as one variable rises, the other rises. For that matter, as Stigma among families with or without an adolescent relative with substance use disorder increases, their psychological distress also rises.

Stigma among Families With/without Substance Use Disorders

Hypothesis 3 stated that, "Families with SUD relatives would feel stigmatized as compared with families of non-substance users." This was measured using the Independent *t* test because there is one independent variable – family – with two levels (families with substance-use disorder and families without substance-use disorders) which was measured against one dependent variable – stigma. Table 7 contains a summary of the results for the Independent *t* test.

Table 7: Summary of Independent *t* test for families with/without substance use disorders and sigma

Family	N	Mean	SD	*t*	df	*p*
Family with SUD	40	85.63	9.34	28.05	78	.00*
Family without SUD	40	41.33	3.54			

* Significant at the .05 level of significance

From table 7 above, it can be observed that the mean difference between Families with substance use disorders (M = 85.63; SD = 9.34) and Families without substance use disorders (M = 41.33; SD = 3.54) on stigma is significant [t(78) = 28.05, p = 00*]. Based on this results, hypothesis 3 which stated that, "Families with SUD relatives would feel stigmatized as compared with families of non-substance users."" is supported at the .05 level of significance.

Burden among Families With/Without Substance Use Disorders

Hypothesis 4 stated that, "Family members with a SUD relative would experience more burden as compared with family members with no SUD relative." This was measured using the Independent *t* test because there is one independent variable – family – with two levels (families with substance-use disorder and families without substance-use disorders) which was measured against one dependent variable – family burden. Table 8 contains a summary of the results for the Independent *t* test.

Table 8: Summary of Independent *t* test for families with/without substance use disorders and burden experienced

Family	N	Mean	SD	*t*	df	*p*
Family with SUD	40	23.78	9.34	28.05	78	.00*
Family without SUD	40	1.83	2.34			

* Significant at the .05 level of significance

From table 8 above, it can be observed that the mean difference between Families with substance use disorders (M = 23.78; SD = 9.34) and Families without substance use disorders (M = 1.83; SD = 2.34) on burden is significant [t(78) = 28.05, p = .00]. Based on these results, hypothesis 4 which stated that "Family members with a SUD relative would experience more burden as compared with family members with no SUD relative." is supported at the .05 level of significance.

Psychological Wellbeing and Education

Hypothesis 5 stated that, "There will be significant differences in psychological wellbeing among family members with substance use disorders based on educational differences." Statistically, this was analyzed using the One-Way Analysis of Variance since there is one independent variable – education – with four levels (primary, JHS, SHS, and Tertiary) which was based on psychological wellbeing. Table 9 below contains a summary of the One-Way ANOVA table for psychological wellbeing based on educational levels.

Table 9

Summary of One-Way ANOVA for differences in means of psychological wellbeing among families with substance use disorders based on educational levels

Educational Level	N	Mean	SD	*df*	*F*	*P*
Primary	2	44.00	2.83	3, 36	1.913	.145
JHS	10	43.10	1.37			
SHS	3	48.67	5.77			
Tertiary	25	46.24	4.88			
Total	40	45.53	4.44			

***** Significant at the .05 level of significance

From the table 9 (One-Way ANOVA table) table above, it can be observed that the differences in means for families with substance use disorders who completed Primary (M = 44.00; SD = 2.83), JHS (M = 43.10; SD = 1.37), SHS (48.67; SD = 5.77), and Tertiary (M = 46.24; SD = 4.88) is not

significant [F(3, 36) = 1.913, p = n.s.] Thus hypothesis 5 which stated that, "There will be significant differences in psychological wellbeing among family members with substance use disorders based on educational differences" is not supported at the .05 level of significance.

Sex Differences in Psychological Distress, Family Burden and Stigma

Hypothesis 6 stated that, "There would be significant differences in psychological distress, family burden and stigma based on sex of family members with substance use disorders." In order to test this hypothesis, the One-Way Multivariate Analysis of Variance (MANOVA) was used to test the differences in psychological distress, family burden, and stigma based on sex differences among families with substance use disorders. Following the violation of the covariance and homogeneity assumptions underlying the MANOVA, Pillai's Trace was selected [$F_{(4, 287)} = 61.00$, $p = .000$, Pillai's Trace = .836 with a Partial Eta Squared = .836]. The One-Way MANOVA result is summarized in Table 10 below.

Table 10

Summary of the One-Way MANOVA comparing differences in psychological distress, family burden, and stigma among families with substance use disorders based on sex differences

Variables	Male n = 24 Mean (SD)	Female n = 16 Mean (SD)	*F*	*df*	*p*	η^2
Psychological Distress	79.13 (5.94)	95.38 (1.93)	111.19	1,38	.00*	.745
Family Burden	21.001 (3.75)	27.94 (6.01)	20.30		.00*	.348
Stigma	7.833 (.96)	8.00 (.97)	.93		.59	.007

*Significant at the .05 level of significance

From table 10 above, it can be observed that a significant difference existed among the psychological distress and family burden when males and females from families with substance use disorders were compared. However, no significant difference was observed among stigma levels when males and females from families with substance use disorders were compared. Scores on psychological distress showed significant differences among the two groups (males and females) [$F_{(1,38)} = 111.19$, $p = .00$ with an effect size of $\eta^2 = .745$]. In this case, females from families with substance use disorders had a higher rate of psychological distress than males from families with substance use disorders [($M_D = 295.38$) > ($M_C = 79.13$)]. Furthermore, scores on family burden showed significant differences among the two groups (males and females) [$F_{(1,38)} = 20.30$, $p = .00$ with an effect size of $\eta^2 = .348$]. In this case, females from families with substance

use disorders had a higher rate of family burden than males from families with substance use disorders [(M_D = 27.94) > (M_C = 21.00)]. However, scores on stigma showed no significant differences among the two groups (males and females) [$F_{(1,38)} = .93$, $p = .59$ with an effect size of $\eta^2 = .007$]. In this case, females from families with substance use disorders had a relatively equal rate of stigma compared with males from families with substance use disorders [(M_D = 8.00) = (M_C = 7.833)].

Rank of Mental Health Issues

Hypothesis 7 stated that, "Families with substance use disorders would report more psychological distress than the other mental health issues such as family burden and stigma." This hypothesis is aimed at identifying the main issues affecting the mental health of families with substance use disorders as perceived by the families with substance use disorders by ranking them according to severity. For that aspiration, the Repeated Measures Analysis of Variance was used to test this hypothesis and a significant omnibus result level of .000 was computed. A summary of the Repeated Measures ANOVA result is presented in Table 11a.

Table 11a: Summary of Repeated Measures ANOVA Results on the Mental health issues experienced by Families with Substance Use disorders (N = 40)

Mental Health Issues	**Mean**	**SD**	***F***	***df***	***Sig.***	η^2
Psychological Distress	85.63	9.34	11.45	1, 36	.000	.495
Family Burden	23.78	5.83				
Stigma	7.90	.96				

Note: Average Mental Health issues checklist scaled 1 – 6 on a Likert scale, with 1 representing the absence of mental health issue and 6 representing the presence of mental health issue all the time

Table 11b

Summary of LSD Comparisons on the Mental health issues experienced by Families with Substance Use disorders (N = 40)

Mental Health Issues	Psychological Distress	Family Burden	Stigma
Psychological Distress	-		
Family Burden	-61.85*	-	
Stigma	-77.73*	-55.88*	-

* Significant at the .05 level of significance

From tables 11a and 11b of the Repeated Measures ANOVA and LSD Comparisons, it can be observed that the Repeated Measures analysis of variance on the families with substance use disorders on the reported mental health issues was significant [F (1, 36) = 11.45, $p < .000$, $\eta^2 = .495$.]. Since the results were statistically significant, the conservative LSD post hoc test was used to further examine the findings. The post hoc test comparisons show that the families with substance use disorders reported higher levels of psychological distress and this was followed in descending order by family burden and finally stigma. The effect size of η2 = .495 is moderate. Based on that, the hypothesis 7 which stated that, "Families with substance use disorders would report more psychological distress than the other mental health issues such as family burden and stigma." is supported.

Summary of Results

Hypothesis 1a stated that, "Family members of adolescents without substance use (substance disorder) would experience better psychological wellbeing as compared with family members of adolescents with substance use (substance use disorder)." During the study it was found that family members of adolescents without substance use (substance disorder) experience better psychological wellbeing than family members of adolescents with substance use.

Hypothesis 1b stated that, "Family members of adolescents without substance use (substance disorder) would experience lesser psychological distress as compared with family members of adolescents with substance use (substance use disorder)." During the study, it was found that Family members of adolescents without substance use (substance disorder) experience lesser psychological distress as compared with family members of adolescents with substance use (substance use disorder)

Hypothesis 2 stated that, "There would to be a significant negative correlation between psychological wellbeing and psychological distress, family burden and stigma." During the study it was found that a strong negative correlation exists between psychological wellbeing and variables pertaining to mental health issues such as psychological distress, family burden and stigma. This means that, as one variable rises, the other decreases. For that matter, as psychological wellbeing among families with or without an adolescent relative with substance use disorder increases, their psychological distress, family burden, and stigma decreases. The inverse is also true, whereby as psychological distress, family burden, and stigma among families with or without an adolescent relative with substance use disorder increases, their psychological wellbeing decreases. On the other hand, a significant positive correlation was found between family burden, stigma, and psychological distress such that as one of these variables rises, the other also rises.

Hypothesis 3 stated that, "Families with SUD relatives would feel stigmatized as compared with families of non-substance users." In the course of the study, it was found that, family members of adolescents with substance use disorder felt stigmatized as compared with family members of adolescents without substance use disorder.

Hypothesis 4 stated that, "Family members with a SUD relative would experience more burden as compared with family members with no SUD relative." In the course of the study, it was found that, family members of adolescents with a SUD relative experienced more burden as compared with family members with no SUD relative.

Hypothesis 5 stated that, "There will be significant differences in psychological wellbeing among family members with substance use disorders based on educational differences." In the course of the study, it was found that, irrespective of their educational differences, families with substance use disorders enjoy relatively similar levels of psychological wellbeing.

Hypothesis 6 stated that, "There would be significant differences in psychological distress, family burden and stigma based on sex of family members with substance use disorders." In the course of the study, it was found that, females from families with substance use disorders had a higher rate of family burden and psychological distress than males from families with substance use disorders. However, stigma perception yielded no significant difference among both sexes.

Hypothesis 7 stated that, "Families with substance use disorders would report more psychological distress than the other mental health issues such as family burden and stigma." In the course of the study, it was found that, families with substance use disorders reported more psychological distress and this was followed in descending order by family burden and finally stigma.

CHAPTER FIVE

Discussion of main findings

The broad objective of the study was to examine the effects of adolescents substance use on the family in an urban setting in Ghana. The Greater Accra Region of Ghana was selected due to convenience in terms of proximity to the researcher as well as housing most rehab centers for substance users. Specific objectives were to: (1) examine the influence of adolescents SUDs on the family's mental health (psychological wellbeing and psychological distress); (2) ascertain the influence of adolescents' substance use and courtesy stigma among family members with SUD relative and; (3) assess the level of burden family members experience as a result of their relative's SUD. Furthermore, the relationship between relatives of adolescent SUD psychological distress and psychological well-being was also investigated.

The discussion of the study is categorized according to the characteristics of the sample and the three main objectives. The chapter discusses issues involving psychological wellbeing and distress among families with/without SUD, gender differences in psychological wellbeing, courtesy stigma among family members with SUD relatives and level of burden among family members with SUD relatives. Limitations of the current study, recommendations for clinical practice, directions for future research and ends with conclusion.

Psychological wellbeing and distress among families with/without SUD

One of the main objectives of this research was to examine the influence of adolescents SUDs on the family's mental health (psychological wellbeing and psychological distress). Hence, the first hypothesis was stated that: "Family members of adolescents without substance use (substance disorder) would experience better psychological wellbeing but lesser psychological distress as compared with family members of adolescents with substance use."

It was observed in the result section of the study that the first hypothesis was supported, suggesting that families without substance use disorders experience significantly better psychological wellbeing than families with substance use disorders relative in the Greater Accra Region of Ghana. The finding means that families with adolescents SUDs relative within the urban setting, Greater Accra Region of Ghana are more likely to experience minimal psychological wellbeing as a result of their relative's SUD as compare with families without adolescent SUD relative. This finding is in agreement with a related study on caregivers by Coen, O'Boyle, Swanwick, and Coakley (1999), they observed that caregivers of mentally ill patients (Alzheimer's disease) reported a poorer psychological wellbeing. Family members taking care of their relatives with SUD have a more negative impact on relatives' psychological well-being as suggested by this study. A similar study by Hassan, Mohamed, Elnaser, and Sayed (2011) on caregivers of mentally ill patients reported a higher level of psychological distress among family members taking care of their mentally ill relative.

Moreover, it was also observed that the second part of hypothesis one (1) was supported, suggesting that families without substance use disorders experience significantly lesser

psychological distress than families with substance use disorders relative in the Greater Accra Region of Ghana. The finding means that families with adolescents SUDs relative within the urban setting, Greater Accra Region of Ghana, are more likely to experience higher psychological distress as a result of their relative's SUD as compare with families without adolescent SUD relative. These findings agree with past empirical studies by Cummins and Hughes (2007) that established that primary caregivers are at considerable risk of high stress, clinical depression, and abnormally low subjective quality of life.

Furthermore, the survey by Australian Bureau of Statistics (ABS), 1998 found that approximately 30% of caregivers reported that their well-being had been affected by caregiving, and that they were often worried or depressed. Caregiver burden, depression and life satisfaction have been identified as discrete aspects of caregiver's well-being by O'Rourke and Tuokko (2003). A comprehensive meta-analysis of mental and physical health effects of caregiving by Pinquart and Sorensen (2003) found significantly higher rates of depression and stress in caregivers compared with non-caregivers. Cummins and Hughes (2007) also found in their study that wellbeing decreases linearly as the number of hours spent caring increases and caregivers are more likely to be experiencing chronic pain. They also established that primary caregivers are at considerable risk of high stress, clinical depression, and abnormally low subjective quality of life. Schulz and Sherwood (2008) also established that the detrimental physical effects of caregiving are generally less intensive than the psychological effects.

Contrary to this finding, other studies suggest that caregiving may at the same time be associated with increasing self-esteem, meaning, engagement, and pride (Kramer, 1997; Marks, 1998; Marks

& Lambert, 1998; Marks et al., 2002). In the Victorian Carers Program research for instance, 84% of caregivers indicated that they receive a great deal of satisfaction from caring (Schofield et al., 1998). Caregivers also described some benefits of caring, such as a sense of closeness to the care recipient, and enhanced self-esteem (Ashworth & Baker, 2000). In the ABS data, 33% of caregivers indicated that their relationship with the care recipient was closer as a result of their caregiving role (ABS, 1998). It is likely that these positive aspects of caring would impact positively on the caregiver's overall mental health.

Gender differences in psychological wellbeing

From the analysis of the demographic characteristics, it was observed that females from families with substance use disorders had a higher rate of family burden and psychological distress than males from families with substance use disorders. This finding is consistent with previous literature. Glozah, (2013) found that females had higher depression and social dysfunction scores than males. Also, Caroli and Sagone (2013) found that females reported lower psychological well-being than males. Furthermore, the finding affirms the study by Masi, Sbrana, Poli, Tomaiuolo, Favilla and Marcheschi (2000) found females scoring higher on depression than males. Lastly but not the least, females have been found to be more expressive of their emotions than males and this may also account for gender differences in psychological well-being (Kessler et al., 1994; Nolen-Hoeksema, 2001). However, stigma perception yielded no significant difference among both sexes.

Courtesy stigma among family members with SUD relatives

Families play an important role in the management of patients with various types of illness, SUD is no exception. Family members take care of their ill relatives at home, participate in treatment decision-making and rehabilitation. Family members feel stigmatized due to negative stereotypes of mental illness and thus either do not seek or delay seeking help (Angermeyer, Schulze & Dietrich, 2003). Hence, another major objective of this present study was to ascertain courtesy stigma among family members with SUD relatives. The results from this study supported the hypothesis which stated that families with SUD relatives would feel stigmatized as compared with families of non-substance users. That is, the proposal that adolescent substance use could exert some psychosocial influence such as stigma on their family members was supported. One of the vital assumptions underlying the study was that adolescent substance use would not just have negative consequence on the individuals themselves but would also have some negative implication on their family members such as courtesy stigma (Goffman, 1963).

This therefore informed the formulation of the hypothesis, and this was supported by the current result where families of adolescents with substance use disorder felt stigmatized. The present study provides further evidence on the impact of adolescent substance use on the family. The present study suggests that families of adolescents with substance use disorder feel stigmatized aside the other psychological difficulties experienced by them as result of taking care of their relative. In the present study, it was revealed that most of the family members of adolescent with substance use disorder mainly blamed themselves for their relative's SUD. Whereas others also felt ashamed of their relative disorder. This finding is in concordance with a study carried out by Griffiths (2011). The study reported that caregivers reported the experience of stigma similar to that of

patients. The study found that nearly one-third of the family members were reluctant to tell people about their relative's mental illness. Around half of the caregivers reported having experienced offensive attitudes from both general population and media which makes them ashamed. Different studies also show a positive correlation between perceived stigma and burden experienced by the caregivers (El-Tantawy, Raya & Zaki 2010; Magana, Ramirez Garcia, Hernandez & Cortez, 2007). This perceived stigma in caregivers has been associated with depression, suicidal thoughts and that the patient will be better off dead (El-Tantawy et al 2010; Magana, et al 2007; Ostman & Kjellin, 2002).

Level of burden among family members with SUD relatives

The third major and final objective of the present study was to ascertain the level of burden experienced among family members with SUD relative. Hence, it was hypothesized that family members with SUD relative would experience more burden as compared with family members with no SUD relative. The results showed that family members with a SUD relative were more burdened as compared with their control group, families without SUD relative. The present study observed disruption of routine family activities, family members felt strained around relative, disruption of family interaction, financial burden, and effect on physical health of other family members as the other manifestations of the burden experienced by the caregivers.

The observation is in concordance with a study carried out in Egypt where high levels of burden were reported in the caregivers of mental illness (Hassan, Mohamed, Elnaser, & Sayed, 2011). The manifestations of the burden were mostly in the form of disturbance of family life and impaction on the mental health of the caregiver, as compared to the study conducted in Egypt where the

highest scores of burden were related to investing time and physical efforts in caring for their mentally ill relative, being sad and worried, and spending money on them (Hassan et al., 2011). A study conducted by Vasudeva, Sekhar, and Rao (2013), also reported higher level of burden among caregivers of mentally ill patients.

Psychological wellbeing, distress, family burden and stigma among relatives

The study found a strong negative correlation exists between psychological wellbeing and variables pertaining to mental health issues such as psychological distress, family burden and stigma. This means that, as one variable rises, the other decreases. For that matter, as psychological wellbeing among families with or without an adolescent relative with substance use disorder increases, their psychological distress, family burden, and stigma decreases. The inverse is also true, whereby as psychological distress, family burden, and stigma among families with or without an adolescent relative with substance use disorder increases, their psychological wellbeing decreases. This finding is in concordance with studies by Corrigan and Miller (2004) that showed a negative significant relationship between stigma and psychological wellbeing among caregivers. In their studies, caregivers who were more stigmatized reported lesser psychological wellbeing. Other studies have also reported the damage of stigma on self-esteem (Park & Seo, 2016). Park and Seo, findings indicated that parents who perceived high level of associative stigma had low self-esteem. It is however possible that there could be some mediating factors such as self-concept and knowledge contributing to these findings.

On the other hand, a significant positive correlation was found between family burden, stigma, and psychological distress such that as one of these variables rises, the other also rises. This is line with studies by Markowitz (1998) that suggested that high level of stigma is related to high level of

depression. In a related studies, findings showed that some caregivers experienced great psychological distress, burden and stigma as a result of giving care to their mentally ill relative (Koschorke et al., 2014).

Implications of the Study

The findings of the study have a lot of implications. First, it was found that family members of adolescents without substance use (substance disorder) experience better psychological wellbeing and lower psychological distress as compared with family members of adolescents with substance use (substance use disorder). The implication of this study is that substance abuse does not only have consequences on the abusers but also decreases the psychological wellbeing and increases distress of family members. It is therefore imperative for health professionals to provide psychological assistance to both SUD patients and their relatives as finding from the current study suggest the psychological distress experienced by relatives of SUD adolescents.

The study also revealed a significant negative correlation between psychological wellbeing and psychological distress, family burden and stigma. This implies that psychological distress, family burden and stigma decrease the psychological wellbeing of family members of substance abuse. This suggests that caregivers must be evaluated from time to time for their psychological reactions and whenever required must be treated adequately. These measures would lead to reduction in stigma among the caregivers and possibly improve the overall outcome of the patients.

The findings of the study also imply that substance use have negative consequences on females compared to males family members. However, stigma perception yielded is equal for both sexes.

Further, the findings indicated that substance abuse has equal consequences on psychological wellbeing of family members with different educational status. This means that, irrespective of their educational differences, families with substance use disorders enjoy relatively similar levels of psychological wellbeing.

Limitations of the current study

The most significant limitation of this study was the sample size obtained for both family members of adolescents with SUDs and family members of adolescents without SUDs. The researcher was only able to get just a few above of the original sample size projected for the data collection. This was due to difficulty in getting family members to consent to being a part of the study. Further, the sample size of eighty (80) (forty cases and forty controls) which may be justified in the scope of clinical studies, reduces the generalizability of the findings to a larger population.

The age range (adolescence) used for the study limited the number of people recruited for the study, especially at the rehab centres. Perhaps, a general (no-age-limit) inclusion of individuals with SUDs would have made it possible to capture a larger range of individuals with SUDs at both the rehab centres and those living in their general homes.

Another limitation worth noting in this study is the fact that the study was primarily quantitative. Concepts like stigma, emotional, behavioural, and financial burdens are better understood when family members are allowed to express themselves through the use of the interview method. Future researchers can thus employ the mixed method approach (using both quantitative and qualitative data) to be able to assess these concepts more adequately.

Moreover, this study involved the use of participants from the Greater Accra region only which happens to be just one out of the numerous administrative regions in Ghana. A non-probability sampling technique was used which according to Atindabila (2013) does not aid in generalization. Again, Creswell (2008) highlighted that, results from quantitative studies may miss out on certain phenomena occurring in the environment which may not be captured in the research instrument. For that matter, the extent of application/generalization should have a caveat: the findings of this study allows us to understand the population of study when it comes to the effect of adolescents substance use on the family in the Greater Accra Region of Ghana. Moreover, Creswell highlighted that, surveys could have the problem of social desirability effect whereby participants tell you what is socially desirable rather than what is realistic in their case.

Recommendations for clinical practice

The main findings from this study confirm that the effects of adolescent substance use does not only affect the substance user, however, the family members associated with the substance user as well. Thus, it affects the family as a system psychosocially (Lander, Howsare, & Bryne, 2013). Hence it would be useful that health professionals who provide general treatment (therapy) for adolescents with SUD should consider their families (caregivers) in their treatment plan for either or both general physical/medical check-up and psychological assessment and provide them with treatment if necessary. Further, the present study highlights the need to counsel caregivers as to how to deal with various challenges faced due to having SUD patients in the family. Lastly, it is important that health care providers take these findings into consideration to provide psychological assessment and treatment to the caregivers when treating adolescents with substance use disorders.

In line with the above recommendation, it would be prudent for both government and private health facilities/institutions to employ highly skilled professionals with family therapy training to effectively manage or treat both the substance users and their family members who are providing them with care.

Directions for future research

As this current study was based on only family members with adolescent SUD(s), future studies could include the family members of all individuals with SUD(s). This would help to provide information on some challenges that family members other than adolescent substance users experience as a result of the relative SUD(s). Also, there is a need for further research on stigma experienced by family members of adolescents with SUD to have a better understanding and identification of determinants which might suggest ways to reduce stigma and help to prevent its adverse consequences. This will help the understanding stigma experienced by caregivers of SUD and formulating strategies in reducing courtesy stigma and resultant treatment barrier.

It is also recommended that future studies conduct qualitative studies in order to explore and to better understand certain psychosocial concepts such as stigma, emotional, behavioural, and financial burdens that some family members experience as a result of their adolescent relative substance use.

In addition, future research could also look at how these family members cope with their relative's SUD(s).

Conclusion

This study sought to investigate the effects of adolescent substance use on the family in an urban setting (Greater Accra Region) in Ghana. Thus, to examine the influence of adolescents SUDs on the family's mental health (Psychological wellbeing and psychological distress). It also sought to ascertain the relationship between adolescent's substance use and courtesy stigma among family members of relatives with SUD relative and to also assess level of burden the family experience as a result of their relative's SUD. The findings from this study shows that adolescents SUDs do not only affect the individuals using the substances, however, it negatively affect their families as a system. This research has been pertinent as it has made available essential baseline data with regard to the psychosocial burden experienced by families with SUDs relative. The first of its kind, to ascertain the effects of adolescent substance on the family in Ghana. This is important due to dearth of information available on the effects of adolescent use on the family in Ghana. Available literature mostly focused on the effects of substance use on the individuals using the substances.

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Appendices

Appendix A: Ethical Clearance

UNIVERSITY OF GHANA
ETHICS COMMITTEE FOR THE HUMANITIES (ECH)
P. O. Box LG 74, Legon, Accra, Ghana

My Ref. No.....

3rd December 2015

Mr. Derick Asiedu
Department of Psychology
University of Ghana
Legon

Dear Mr. Asiedu,

ECH 031/15-16: EFFECTS OF ADOLESCENCE SUBSTANCE USE ON THE FAMILY IN ANA URBAN SETTING IN GHANA

This is to advise you that the above reference study has been presented to the Ethics Committee for the Humanities for a full board review and the following actions taken subject to the conditions and explanation provided below:

Expiry Date:	7/05/16
On Agenda for:	Initial Submission
Date of Submission:	20/08/15
ECH Action:	Approved
Reporting:	Quarterly

UG/ISSER/ECH VALID UNTIL 07 MAY 2016 APPROVED DOCUMENT

Please accept my congratulations.

Yours Sincerely,

Rev. Prof. J. O. Y. Mante
ECH Chair

CC: Prof. C. C Mate- Kole, Department of Psychology

Appendix B: Consent Form

Introduction

My name is Derick Asiedu and I am from the Department of Psychology, University of Ghana. I am conducting a research study entitled — Effects of adolescent substance use on the family in an urban setting in Ghana. This Consent Form contains information about the research named above. In order to be sure that you are informed about being in this research, we are asking you to read (or have read to you) this Consent Form. You will also be asked to sign it (or make your mark in front of a witness). We will give you a copy of this form. This consent form might contain some words that are unfamiliar to you. Please ask us to explain anything you may not understand.

General Information about Research

- The primary aim and objective of the study is to generally examine the impact of adolescents substance use on the family in the Greater Accra Region of Ghana.
- The study will specifically seek to examine the influence of adolescents substance use disorder (SUD) on the family's mental health (Psychological wellbeing and psychological distress) and family burden.
- It will further ascertain courtesy stigma among family members of relatives with SUDs.
- Participants will require an average of 45mins to complete the study.
- Purposive sampling will be used to select participants for the study. This will consist of 40 family members of relatives with SUDs and 40 family members of relatives without SUDs. The mental health scale will be used to assess the psychological wellbeing and the psychological distress of these family members. The caregiver's burden inventory will also be used to assess the burden faced by these family members as a result of taking care of their relatives. Finally, Courtesy stigma scale will be used to assess the stigma faced by these family members.

Benefits/Risk of the study

Participants are not going to have any direct or immediate benefit from the study but the outcome will improve on the knowledge of substance use to influence treatment and rehabilitation. Also, there is no direct risk except for the time required to answer the questionnaires.

Confidentiality

Participants will be identified using alphanumeric codes which cannot biological lead or disclose persons involved in the study. Your information will be kept confidential. No one will be able to know how you responded to the questions and your information will be anonymous.

The principal investigator and his supervisors are the only people who will have direct access to research records.

Compensation

Participants will be compensated with a can drink after their voluntary participations.

Withdrawal from Study

- Participation is voluntary and participants may withdraw at any time without Penalty.
- Participant will not be adversely affected if he/she declines to participate or later stops participating.
- The participant's legal representative will be informed in a timely manner if information becomes available that may be relevant to the participant's willingness to continue participation or withdraw

Contact for Additional Information

- For further clarifications about this research kindly contact Derick Asiedu on 0267548190 or send an email to dricksie2004@gmail.com
- If you have any questions about your rights as a research participant in this study you may contact the Administrator of the Ethics Committee for Humanities, ISSER, University of Ghana at ech@isser.edu.gh / ech@ug.edu.gh or 00233- 303-933-866.

VOLUNTEER AGREEMENT

"I have read or have had someone read all of the above, asked questions, received answers regarding participation in this study, and am willing to give consent for me, my child/ward to participate in this study. I will not have waived any of my rights by signing this consent form. Upon signing this consent form, I will receive a copy for my personal records."

_____

Name of Volunteer

_____

_____

Signature or mark of volunteer Date

If volunteers cannot read the form themselves, a witness must sign here:

I was present while the benefits, risks and procedures were read to the volunteer. All questions were answered and the volunteer has agreed to take part in the research.

_____

Name of witness

_____

_____

Signature of witness Date

I certify that the nature and purpose, the potential benefits, and possible risks associated with participating in this research have been explained to the above individual.

_____

Name of Person who Obtained Consent

_____

_____

Signature of Person Who Obtained Consent Date

Appendix C: Questionnaires

Section A. (Demographics)

Dear participant, thank you very much for your time to voluntarily assist us with this study. Kindly provide your personal information below.

A. What is your age? Please state in years…….

B. What is your Sex?

(1) Male

(2) Female

C. What is your faith?

(1) Christian

(2) Muslim

(3) Traditionalist

(4) Other, please specify…….

D. What is the highest level of your education?

(1) Primary

(2) JHS

(3) SHS

(4) Tertiary

E. What is your relation to the client?

(1) Parent

(2) Sibling

(3) Other, please specify……

Section B.
Mental Health Inventory (MHI)

INSTRUCTIONS: Please read each question and tick the box by the ONE statement that best describes how things have been FOR YOU during the past month. There are no right or wrong answers.

1. How happy, satisfied, or pleased have you been with your personal life during the past month? ***(Tick one)***
1☐ Extremely happy, could not have been more satisfied or pleased
2☐ Very happy most of the time
3☐ Generally, satisfied, pleased
4☐ Sometimes fairly satisfied, sometimes fairly unhappy
5☐ Generally dissatisfied, unhappy
6☐ Very dissatisfied, unhappy most of the time

2. How much of the time have you felt lonely during the past month? ***(Tick one)***
1☐ All of the time 4☐ Some of the time
2☐ Most of the time 5☐ A little of the time
3☐ A good bit of the time 6☐ None of the time

3. How often did you become nervous or jumpy when faced with excitement or unexpected situations during the past month? ***(Tick one)***
1☐ Always 4☐ Sometimes
2☐ Very often 5☐ Almost never
3☐ Fairly often 6☐ Never

4. During the past month, how much of the time have you felt that the future looks hopeful and promising? ***(Tick one)***
1☐ All of the time 4☐ Some of the time
2☐ Most of the time 5☐ A little of the time
3☐ A good bit of the time 6☐ None of the time

5. How much of the time, during the past month, has your daily life been full of things that were interesting to you? ***(Tick one)***
1☐ All of the time 4☐ Some of the time
2☐ Most of the time 5☐ A little of the time
3☐ A good bit of the time 6☐ None of the time

6. How much of the time, during the past month, did you feel relaxed and free from tension? ***(Tick one)***
1☐ All of the time 4☐ Some of the time
2☐ Most of the time 5☐ A little of the time
3☐ A good bit of the time 6☐ None of the time 2

7. During the past month, how much of the time have you generally enjoyed the things you do? ***(Tick one)***

1☐ All of the time 4☐ Some of the time
2☐ Most of the time 5☐ A little of the time
3☐ A good bit of the time 6☐ None of the time

8. During the past month, have you had any reason to wonder if you were losing your mind, or losing control over the way you act, talk, think, feel, or of your memory? ***(Tick one)***

1☐ No, not at all
2☐ Maybe a little
3☐ Yes, but not enough to be concerned or worried about
4☐ Yes, and I have been a little concerned
5☐ Yes, and I am quite concerned
6☐ Yes, I am very much concerned about it

9. Did you feel depressed during the past month? ***(Tick one)***

1☐ Yes, to the point that I did not care about anything for days at a time
2☐ Yes, very depressed almost every day
3☐ Yes, quite depressed several times
4☐ Yes, a little depressed now and then
5☐ No, never felt depressed at all

10. During the past month, how much of the time have you felt loved and wanted? ***(Tick one)***

1☐ All of the time 4☐ Some of the time
2☐ Most of the time 5☐ A little of the time
3☐ A good bit of the time 6☐ None of the time

11. How much of the time, during the past month, have you been a very nervous person? ***(Tick one)***

1☐ All of the time 4☐ Some of the time
2☐ Most of the time 5☐ A little of the time
3☐ A good bit of the time 6☐ None of the time

12. When you have got up in the morning, this past month, about how often did you expect to have an interesting day? ***(Tick one)***

1☐ Always 4☐ Sometimes
2☐ Very often 5☐ Almost never
3☐ Fairly often 6☐ Never

13. During the past month, how much of the time have you felt tense or ″high-strung″? ***(Tick one)***

1☐ All of the time 4☐ Some of the time
2☐ Most of the time 5☐ A little of the time
3☐ A good bit of the time 6☐ None of the time

14. During the past month, have you been in firm control of your behavior, thoughts, emotions or feelings? ***(Tick one)***

1☐ Yes, very definitely 4☐ No, not too well
2☐ Yes, for the most part 5☐ No, and I am somewhat disturbed
3☐ Yes, I guess so 6☐ No, and I am very disturbed 3

15. During the past month, how often did your hands shake when you tried to do something? ***(Tick one)***

1☐ Always 4☐ Sometimes
2☐ Very often 5☐ Almost never
3☐ Fairly often 6☐ Never

16. During the past month, how often did you feel that you had nothing to look forward to? ***(Tick one)***

1☐ Always 4☐ Sometimes
2☐ Very often 5☐ Almost never
3☐ Fairly often 6☐ Never

17. How much of the time, during the past month, have you felt calm and peaceful? ***(Tick one)***

1☐ All of the time 4☐ Some of the time
2☐ Most of the time 5☐ A little of the time
3☐ A good bit of the time 6☐ None of the time

18. How much of the time, during the past month, have you felt emotionally stable? ***(Tick one)***

1☐ All of the time 4☐ Some of the time
2☐ Most of the time 5☐ A little of the time
3☐ A good bit of the time 6☐ None of the time

19. How much of the time, during the past month, have you felt downhearted and blue? ***(Tick one)***

1☐ All of the time 4☐ Some of the time
2☐ Most of the time 5☐ A little of the time
3☐ A good bit of the time 6☐ None of the time

20. How often have you felt like crying, during the past month? ***(Tick one)***

1☐ Always 4☐ Sometimes
2☐ Very often 5☐ Almost never
3☐ Fairly often 6☐ Never

21. During the past month, how often have you felt that others would be better off if you were dead? ***(Tick one)***

1☐ Always 4☐ Sometimes
2☐ Very often 5☐ Almost never
3☐ Fairly often 6☐ Never

22. How much of the time, during the past month, were you able to relax without difficulty? ***(Tick one)***

1☐ All of the time 4☐ Some of the time
2☐ Most of the time 5☐ A little of the time
3☐ A good bit of the time 6☐ None of the time

23. How much of the time, during the past month, did you feel that your love relationships, loving and being loved, were full and complete? ***(Tick one)***

1☐ All of the time 4☐ Some of the time
2☐ Most of the time 5☐ A little of the time
3☐ A good bit of the time 6☐ None of the time 4

24. How often, during the past month, did you feel that nothing turned out for you the way you wanted it to? ***(Tick one)***

1☐ Always 4☐ Sometimes
2☐ Very often 5☐ Almost never
3☐ Fairly often 6☐ Never

25. How much have you been bothered by nervousness, or your "nerves", during the past month? ***(Tick one)***

1☐ Extremely so, to the point 4☐ Bothered some, enough to notice where I could not take care of things
2☐ Very much bothered 5☐ Bothered just a little by nerves
3☐ Bothered quite a bit by nerves 6☐ Not bothered at all by this

26. During the past month, how much of the time has living been a wonderful adventure for you? ***(Tick one)***

1☐ All of the time 4☐ Some of the time
2☐ Most of the time 5☐ A little of the time
3☐ A good bit of the time 6☐ None of the time

27. How often, during the past month, have you felt so down in the dumps that nothing could cheer you up? ***(Tick one)***

1☐ Always 4☐ Sometimes
2☐ Very often 5☐ Almost never
3☐ Fairly often 6☐ Never

28. During the past month, did you think about taking your own life? ***(Tick one)***

1☐ Yes, very often
2☐ Yes, fairly often
3☐ Yes, a couple of times
4☐ Yes, at one time
5☐ No, never

29. During the past month, how much of the time have you felt restless, fidgety, or impatient? ***(Tick one)***

1☐ All of the time 4☐ Some of the time
2☐ Most of the time 5☐ A little of the time
3☐ A good bit of the time 6☐ None of the time

30. During the past month, how much of the time have you been moody or brooded about things? ***(Tick one)***

1☐ All of the time 4☐ Some of the time
2☐ Most of the time 5☐ A little of the time
3☐ A good bit of the time 6☐ None of the time

31. How much of the time, during the past month, have you felt cheerful, lighthearted? ***(Tick one)***

1☐ All of the time 4☐ Some of the time
2☐ Most of the time 5☐ A little of the time
3☐ A good bit of the time 6☐ None of the time 5

32. During the past month, how often did you get rattled, upset or flustered? ***(Tick one)***
1☐ Always 4☐ Sometimes
2☐ Very often 5☐ Almost never
3☐ Fairly often 6☐ Never

33. During the past month, have you been anxious or worried? ***(Tick one)***
1☐ Yes, extremely to the point of being sick or almost sick
2☐ Yes, very much so
3☐ Yes, quite a bit
4☐ Yes, some, enough to bother me
5☐ Yes, a little bit
6☐ No, not at all

34. During the past month, how much of the time were you a happy person? ***(Tick one)***
1☐ All of the time 4☐ Some of the time
2☐ Most of the time 5☐ A little of the time
3☐ A good bit of the time 6☐ None of the time

35. How often during the past month did you find yourself trying to calm down? ***(Tick one)***
1☐ Always 4☐ Sometimes
2☐ Very often 5☐ Almost never
3☐ Fairly often 6☐ Never

36. During the past month, how much of the time have you been in low or very low spirits? ***(Tick one)***
1☐ All of the time 4☐ Some of the time
2☐ Most of the time 5☐ A little of the time
3☐ A good bit of the time 6☐ None of the time

37. How often, during the past month, have you been waking up feeling fresh and rested? ***(Tick one)***
1☐ Always, every day 4☐ Some days, but usually not
2☐ Almost every day 5☐ Hardly ever
3☐ Most days 6☐ Never wake up feeling rested

38. During the past month, have you been under or felt you were under any strain, stress or pressure? ***(Tick one)***
1☐ Yes, almost more than I could stand or bear
2☐ Yes, quite a bit of pressure
3☐ Yes, some more than usual
4☐ Yes, some, but about normal
5☐ Yes, a little bit
6☐ No, not at all

Section C.

Caregiver Burden Scale (CBS)

ID Code: _ Date: _

The following questions reflect how people sometimes feel when they are taking care of another person. After each question, circle how often you feel that way: never (0), rarely (1), sometimes (2), frequently (3), or nearly always (4). There are no right or wrong answers.

1. Do you feel that your relative asks for more help than he or she needs? 0 1 2 3 4

2. Do you feel that because of the time you spend with your relative, you do not have enough time for yourself? 0 1 2 3 4

3. Do you feel stressed between caring for your relative and trying to meet other responsibilities for your family or work? 0 1 2 3 4

4. Do you feel embarrassed *over* your relative's behavior? 0 1 2 3 4

5. Do you feel angry when you are around your relative? 0 1 2 3 4

6. Do you feel that your relative currently affects your relationship with other family members or friends in a negative way? 0 1 2 3 4

7. Are you afraid about what the future holds for your relative? 0 1 2 3 4

8. Do you feel your relative is dependent on you? 0 1 2 3 4

9. Do you feel strained when you are around your relative? 0 1 2 3 4

10. Do you feel your health has suffered because of your involvement with your relative? 0 1 2 3 4

11. Do you feel that you do not have as much privacy as you would like, because of your relative? 0 1 2 3 4

12. Do you feel that your social life has suffered because you are caring for your relative?

0 1 2 3 4

13. Do you feel uncomfortable about having friends over, because of your relative? 0 1 2 3 4

14. Do you feel that your relative seems to expect you to take care of him or her, as if you were the only one he or she could depend on? 0 1 2 3 4

15. Do you feel that you do not have enough money to care for your relative, in addition to the rest of your expenses? 0 1 2 3 4

16: Do you feel that you will be unable to take care of your relative much longer?

0 1 2 3 4

17. Do you feel you have lost control of your life since your relative's illness?

0 1 2 3 4

18. Do you wish you could just leave the care of your relative to someone else? 0 1 2 3 4

19. Do you feel uncertain about what to do about your relative? 0 1 2 3 4

20. Do you feel you should be doing more for your relative? 0 1 2 3 4

21. Do you feel you could do a better job in caring for your relative? 0 1 2 3 4

22. Overall, how burdened do you feel in caring for your relative? 0 1 2 3 4

Section D

Family Stigma Scale

INSTRUCTIONS: Please read each question and tick the box by the ONE statement that best describes your opinion about family members of with Substance Use disorders. There are no right or wrong answers.

Strongly Agree =1, Agree =2, neither agree nor disagree =3, Disagree =4, and strongly disagree =5

1. Family members bear some responsibility for person originally getting ill.	1	2	3	4	5
2. Person's illness could rub off on family members (us).	1	2	3	4	5
3. When person relapses, it may be family members' fault.	1	2	3	4	5
4. Family members feel ashamed about (relatives) person's illness.	1	2	3	4	5
5. I would not want to socialize with family members.	1	2	3	4	5
6. I would be likely to NOT pity family members.	1	2	3	4	5
7. Family members (we) were not very good family members to person with illness.	1	2	3	4	5