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Disparity of Assets in Addiction Recovery: Moderators of Perceived Control in Treatment and Recovery Settings in Kenya

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Disparity of Assets in Addiction Recovery: Moderators of Perceived Control in Treatment and Recovery Settings in Kenya

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VITA

The author was born in January, 7, 1972, in the pristine natural hills, valleys, rivers and rocky yet fertile environment of the unforgettably beautiful Kathui Village. This was the once larger Akacui location in Maua, in the Meru North part of the present Meru County in Kenya. He received his first degree from St. Joseph's major seminary in 1995; a second diploma from St. Thomas and Christ the King Seminary in 2001. Both settings were in Kenya. He acquired his first Master's degree in International Public Service Management in 2010, and second Master of Arts in Community Psychology in 2011, and both degrees were from DePaul University Chicago Illinois.

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CHAPTER 1

Introduction

Drug and alcohol use problems demand multiple resources to enable treatment to begin, to maintain sobriety and to prevent new cases of substance abuse. The purpose of this study is to investigate how the population of people with drugs and alcohol problems in Kenya perceive assets and needs. The assets and needs are measured in relation to individual, interpersonal and community capacity. This study compared reports of assets from people in "professional treatment" centers, peer-led residential peer recovery homes, and what is commonly known as *Usual Care*. The goal is to investigate what people in different treatment and recovery settings experience as assets at individual, social and community levels. We employed a cross-sectional assessment of the following assets of a client: intention, important people (i.e., social support networks), and other community level factors.

Professionals, people with drug and alcohol problems, and their families as well as communities are searching for appropriate and successful means to sobriety and an end to substance abuse. Substance abuse problems (hereon referred to as SA) is emerging as a set of urgent public health concerns in every part of the world and most of all in developing countries. Less economically strong countries often lack effective treatment and recovery programs, resources, and research to inform effective pathways to prevention, treatment, and recovery. Too often the mental health domain is left out of primary health care planning because physical illnesses such as HIV/ AIDS, malaria, and malnutrition are seen as such immediate health concerns.

Despite the importance of these other health concerns, SA, as public health issues is reaching pandemic proportions. SA is beginning to be recognized as an epidemic in some national health care plans, after years of neglect in fervor of physical disease concerns. SA is debilitating for many, making many family members unable to manage their lives effectively, and whole families and communities become severely affected (Beck,

Wright, & Liesse, 1993). Too many otherwise good citizens suffer through cycles of craving, abrupt mood changes, and distress. They too infrequently seek relief to alleviate these cravings (Beck, Liese, & Najavits, 2005). Drug addiction and dependence have multiple effects on the person's life, including family distress, loss of jobs, hopelessness, destitution and homelessness. O'Brien and McLellan (1996) explain that whether this complex of problems can be resolved determines whether the person achieves sobriety or relapses.

Global Substance Abuse: Regional burden

According to Murray and Lopez (1997), the global burden attributable to mental, neurological, and substance-abuse disorders was expected to rise from 12.3% in 2000 to 14.7% in 2020. The UN Office on Drug and Crime (2011) estimates that about 230 million people (the range of between 153 to 300 million people) use an illegal drug at least once a year; in the 15 to 64 age group, the means 1 in 20 human beings. Within this age group, approximately 1 in 40 people use drugs regularly, at least once a month. All in all, 1 in 160, or about 27 million people (some estimates suggesting 38.6 million) are exposing themselves to serious, drug-related health consequences because of their drug use. These estimates in SA-related burdens are likely to even more disproportionate in developing world regions such as Africa.

According to one study, Africa has seen positive changes in the area of social, economic, and human development, but not all groups are equally benefitting from these changes (Patel, Saraceno, & Kleinman, 2006). Mental health problems have, for the health agenda of developing regions, been seen as luxury items, particularly when it comes to helping poor and marginalized populations. Given the low priority given to mental health by developing nations, there is great distress among the more than 400 million persons estimated to suffer mental disorders worldwide, with worse situation for those with SA problem in developing economies.

WHO (2011) estimates that 2 billion people worldwide consume alcoholic beverages, and that 76.3 million have diagnosable alcohol use disorders (Roemer & Roemer, 1990). In a 1961-1999 longitudinal report indicates that the European (EURO) region had the highest population-weighted means of adult per capita

alcohol consumption. In the 1960s, the average consumption was 13 liters per each adult per day. In the 1980s, alcohol consumption increased to 17 liters, but in the late 1990s, there was a remarkable reduction to 13 liters per adult. The American region (AMRO) recorded the second-highest alcohol use, with an average adult per capita alcohol consumption of 6 liters in the 1960s, 8 liters in the 1980s and a slight return to 6.5 liters around the late 1990s. This does not mean that the same amount of use has the same impact on groups with differing levels of economic disparities.

Consumption of alcohol in the African (AFRO) Region recorded 4 liters in the 1960s. Yet it hit its highest figure of 5.5 liters in the early 1980s, getting close to the rates of high income regions. While the EURO and AMRO regions recorded fluctuations in the same period the AFRO region experienced consistently increase in alcohol consumption. These patterns over time can, perhaps, be accounted for by the better Western prevention, treatment, and recovery programs, forms of treatment available in more affluent regions.

One source of an increase in the AFRO region was the new availability of illegal local brews, which have exacerbated SA problems there. Much of the alcohol that finds its way into the Africa region is either smuggled in by organized crime or diverted from industrial, technical, and or medical purposes, often before it is denatured. Home brewed alcoholic beverages have also been an increasing problem.

Any new solution in any country is going to require a culturally competent approach, and will need to address the social, economic, political, cultural and personal lifestyle stressors. Such treatment and recovery approaches will equally require an understanding of local needs, as well as local assets that can meet those needs. In addition to being culturally acceptable and considering local contexts, the treatment and recovery programs will need to build greater capacity and be sustainable in nature.

Substance Abuse from Needs Perspective

Over the years research on SA healthcare gaps have been evaluated by health care professionals, such as doctors, clinicians, counselors, and academic researchers. The need to improve such healthcare services have

similarly been informed by the viewpoints of consumer stakeholders. It is important to have this diversity of perspectives in order to change the system.

Regardless of professional or experiential expertise, it is important for evaluations to look go beyond the identification of deficits. Interventions must focus on local assets that can be used to amplify resources. Health care evaluation should include a comprehensive survey of needs and assets in the community from the entire community's perspective. The Center for Substance Abuse Treatment (CSAT, 2000, 2007) recommends that every treatment and recovery program consider the client's views about self, body, mind, relationships and spirit, in the context of local cultural and environmental factors. When local community stakeholders, and particularly persons in need of treatment and recovery, are involved at every stage, the approaches become more inclusive. Clients can create and have created independently and self-directed empowerment interventions.

Interventions that include input from people in recovery can help develop more effective programs. For an effective, efficient, and sustainable, treatment and recovery, the process must take place in a continuum of improved health and wellness, so that treatment and recovery emerges from empowerment, continuous healing and self-redefinition. People suffering from SA problems must recover internally and externally, individually and in the community. Recovery programs must address and transcend stigma and social shame. Recovery programs are best when they provide support from peers and allies, helping them return to playing an active role in re-building their community. Consequently, recovery becomes a process of (re)joining and (re)building a life in the community, making treatment and recovery a reality of life in the local community.

Statement of Purpose

This study carried out a multilevel assessment of assets at a) the individual, b) friend and family network (support and relations), and c) community (assets) levels. This process sought to employ a local Kenyan population (in rural Kenya) in treatment, one in usual post-treatment care, and one in a peer-run mutual recovery setting. A primary goal was to identify what each group perceived as assets to meet their treatment and

recovery needs. The goal of the study was to inform treatment and recovery-oriented systems of care available in rural Africa. This study identified support-centered assets and self-directed approaches to care that built on the strengths and resilience of individuals, families, and communities who take responsibility for sustained better health outcomes, wellness, and recovery from SA problems.

To develop effective post treatment programs and peer run pathways for treatment and recovery services in areas of Kenyan. This study requires a proper understanding of essential assets available and corresponding information about the needs of people with SA problems and their environment. People experiencing SA may have common trajectories. Some go straight to treatment and others go through different peer-based recovery programs. Some of the more independent type community-based settings are focused on sober living, others go to half-way houses and residential treatment facilities. Some return to their families in what is referred to as usual care.

This study attempts to determine differences: (a) in alcohol-drug severity scores across three treatment and recovery settings; professional treatment, peer-run and usual care settings; b) upon treatment settings in individual level assets of intention to utilize Alcoholic Anonymous model; (c) in the types of assets from important person in participants' social support network and if these assets differ depending on treatment and in recovery settings one is in, and finally (d) in scores from a self-report of large general community levels assets, and whether they are impactful to the treatment and recovery for the population. Data were collected from persons in a treatment or recovery setting or who had completed addiction treatment and were in an ongoing recovery at home/families (usual care), or are in sober living settings.

Literature Review

Identifying a social *need* is a crucial issue in social service. Social services must recognize needs and build the social organization to meet them. In the taxonomy of needs, Bradshaw (1972) outlined four separate

health related needs: normative, felt, expressed and comparative need. These definitions are based on perceptions influenced greatly by health care administrators and researchers in the area of health care.

Needs are understood as normative when experts, professionals, administrators or social scientists define them in a specific context. Consequently, a standard is defined and compared to an existing one. Individuals or communities that fall below the standard, or the norm, are in need. For example, the entire battery in the *Diagnostic and Statistical Manual of Mental Disorder* (DSM-IV; 2013) is based on a mental health standard used as a normative measure of mental disorder. Anyone who falls above/below the clinical threshold as delineated by any of the measures in the DSM-IV is classified as "in need of mental treatment" specific to the criterion, or norm.

Bradshaw (1972) points out that a social health need that is normative is not absolute. It may not correspond to other normative needs established by other definitions. A normative need exclusively developed by experts as the only standard is elitist and paternalistic at best. These standards have been developed using specific populations, typically a predominantly white middle class population for which needs have been largely evaluated in a working class context. It is important to keep in mind that norms developed in this way are reasonable for such a specific class, but perhaps not beyond. Imposing the same norm on the working poor population even of a Western society and African middle class population, and even if the culture and society were similar, would be paternalistic. Another problem with the concept of normative need is that different experts may lay down different, incongruent, even contradictory standards that become tangled in scientific politics of whose "norm" is more "normative" rather than what works best for the people in need of treatment and intervention.

Subtle difficulties with normative needs arise because the normative needs are often made outside of the application of a cultural context without gathering relevant input from the widest possible population of stakeholders for cultural validation and adaptation. Walton (1969) explains that when an individual or a

community is determined to be in “need”, a value judgment is made upon that community, which is more than merely stating an empirical fact. This value judgment is based on a proposition: community (A) is in a specific condition; community (B’s) values are incompatible with the values held in third society (C); therefore, community A should be treated to change values, beliefs, and behaviors in community (B). In this perspective, the meaning of “normative” depends on the values of the expert and the expert’s judgment about resources, needed to meet the available skills and solve the problem. Finally, normative standards are constrained by the element of social advancement of each age and time, determined by innovations in knowledge, and change in societal values.

In social health care service, “felt need” is defined reflects what a community feels it needs or wants. Some professionals may think a felt need is important, but they do not actually consider the community’s feeling about whether their needs are important. Felt need is based on the perceptions of individuals, not communities. When people are not aware that a service is available, they are not likely to feel a need for that service. Since people want to be independent, they are often reluctant to admit to themselves or others that they are in need. Felt need is also problematic in that people can ask for a service without actually being in need (Bradshaw, 1972).

Bradshaw (1972) explains that a need can also be presented as an expressed need, also called a demand. An expressed need is a felt need expressed in action. When a number of people demand a service, one might assume that they all feel a need, but people rarely express felt need by demanding services. In health service settings, for instance, patients are often on waiting lists for medical services because they expressed need for help.

Comparative needs, in contrast, are identified by experts identifying the most relevant needs by studying the characteristics of a particular population receiving a service. *Comparative needs* for one population implies that another population with similar characteristics and similar needs, but not receiving those services. The need

is identified by analyzing the differences between services that exist in one area and service that exist in another, and comparing the health conditions of the two communities. Thus, identifying a comparative need tends to standardize service delivery. However, if one is found to be in need compared to another community, it may not actually be in need.

Health Needs Assessment

Historically, health needs of a population have not been assessed in ways that use collaborative health service delivery. Moos, King, Burnett, and Andrassy (1997), as well as Moos (2003), propose a comprehensive evaluation approach, which targets addiction treatment and recovery programs and outcomes by assessing relationships among the programs, personal factors, and patient's outcome. Objective characteristics of the program are used to assess the program's institutional context, physical design, policies and services. Included are other relevant program characteristics such as aggregate characteristics of the patients and staff. Individual social demographic characteristics and personal (patient's) factors consist of an assessment of such elements as health and cognitive status, chronicity and severity, as well as each person's functioning preferences and expectations of the treatment programs. Another important dimension in assessment is social climate, which arises from program characteristics that are over and above the patients' in-program outcomes and accounts for personal and environmental factors affecting the patient's in-program outcomes. The social climate component, for instance, examines satisfaction, self-confidence, interpersonal behavior, and levels of program participation. In these areas, the patient's community adaptation in a program influences one's level of community adaptation such as one's health status, social and work skills, and psychosocial functions.

In substance abuse health care, needs evaluation is used to obtain information to treat addicted persons. Stevens and Stephen (1998) point out that, although not universally recognized, it is widely accepted that needs

assessment is done with limited finite resources and assets. Needs assessment identifies people in the population who are not benefiting from the present health care system. In addition, needs assessment can help identify people who are receiving inappropriate health care and are not benefiting as much as they could.

Contemporary issues in health needs assessment have been discussed from different and often competing theoretical and ethical perspectives. What is needed is balance between what should be done, what can be done at a practical level, and what is sustainable and affordable in a community. These three elements combine economical, clinical and ethical approaches in evaluating needs. According to Black (1994), health needs are balanced by evaluating a society's health care needs. This evaluation is done by attending to the moral and ethical questions surrounding the society's values, goals and outcomes. Practically, a society or community should try to do all that it can. Such intense and comprehensive efforts must also of course consider limitations of time, resources, and knowledge, skills and abilities of professionals available to the community.

Health Care "Needs" Perspectives

A number of scholars have attempted to provide perspectives on health care needs assessment. One approach uses a process of measuring ill health in a population (Mooney, 1994; Pickin & St. Leger, 1993, 1994). This ill health perspective perceives health needs as health losses and builds up a community profile, often a profile of illness by documenting incidences, prevalence and severity of illness in a community, assuming that the greater the ill health in a community, the greater is the need.

Mooney's (1994) study points out that the ill health (deficits) approach for measuring health needs has the following flaw. First, all ill health needs are regarded as losses in the person's health. Second, although the ill health model appears to imply that health problems can be solved, this process measures used do not provide identifiable ways to address needs. Mooney notes that it is an empirical fact that not all ill profiles, or diseases, are remediable. For example, people who have been addicted to drugs are always at the risk of relapse, for this

population it is a lifelong risk. A report by the Substance Abuse and Mental Health Services Administration (2003) indicates that a majority (64%) of persons entering addiction treatment in the US already have one or more prior treatment episodes. Of these 64%, 22% have three or four prior admissions, and 19% have five or more admissions. These people may have had treatment interventions like rehabilitation, or peer–based substance abuse recovery programs that can enhance lifelong quality of life, but the interventions, for whatever reason, were not as fully effective or beneficial for the people as was hoped.

An additional flaw in the ill health approach, Bradshaw (1972) points out, is the "capacity" to benefit from health care. Health needs are not viewed as problems, but as lack of capacity to benefit from interventions. Health care needs do not depend on the number of incidences or the prevalence of public health profiles around the problem. Accordingly, the capacity to benefit from health and associated interventions and outcomes include extending or enhancing life. This approach recognizes psychological, social, and physical benefits of health care need outcomes.

Researchers concur, based on a number of studies, that this notion of health needs as capacity to benefit from interventions has two advantages (Mooney, 1984; 1998; Mooney & Jan, 1997). One, since some health conditions respond more readily to treatment, not all can be successfully treated. Second, health issues are viewed in terms of the desired outcomes for a population. In other words, the notion of "capacity to benefit from health needs" assumes that health problems (needs) are amenable. The capacity to benefit notion also assumes there are ways to identify the needs in terms of intervention and treatment. According to Bradshaw (1972), the "capacity to benefit" approach makes a value judgment when it chooses which outcomes to promote, or more fundamentality, the approach decides who chooses the outcomes, thus, raising the long-standing conflict between the professional's values and that of patients and community.

The model of health needs as capacity to benefit from health care also has problems when extended to its logical conclusion. For instance, two studies, Culyer (1976, 1977) suggests that those who currently have no,

or slight capability to benefit from currently available interventions are still in need, but they are in need of successful research rather than treatments. If a community cannot benefit from interventions available to a population, it follows, fallaciously, from the model, that the community in question is not in need. Even in conditions at which a community has some capacity to benefit, the community's capacity to benefit may be inversely related to the severity of their health problems. For example, if "capacity" means the capacity to achieve lifelong sobriety then a person with a moderate level of substance abuse may have a greater capacity to benefit from just six months of rehabilitation than a person with a longer history who may not benefit in such a short time.

In its best use, the expression "capacity to benefit" should mean judging the effectiveness of the intervention. Capacity to benefit should not be about the severity of the health problem, because severity suggests a determination that one person is in greater need than another. At any given time, the community's health status includes people who can always be defined as having a health problem, for which a specific current health care intervention is ineffective, but they are still in need.

Evidently, the concept "capacity to benefit" often defines benefits in terms of specific interventions or policies. Addiction medicine professionals tend to focus on interventions that have been effective in extending life or restoring normal functioning, overlooking interventions that aim to provide higher continued quality health care or increase psychosocial wellbeing for patients and their caregivers. For example, people with comorbidity of chronic of mental disorders and substance abuse may not benefit significantly from a curative intervention, but they certainly can benefit from a long-term caring health care intervention and services.

Moreover, who is given the legitimacy to determine or define the "ability to benefit' is important. According to Pinckin and St. Leger (1994), defining "ability to benefit' in terms of incidence and prevalence, looks at the number of people and the sort who may benefit. They argue that the starting point should be services not people, and identify the services that are appropriate for people's needs. Because this approach

identifies the outcomes that people value and types of benefits they hope to receive, this relies on professionals to judge what "capacity to benefit' means for the larger community.

Mooney (1994) pointed out that health care economists assess health needs in terms of society's limited capacity to meet all needs. The economic approach, therefore, argues that the capacity of a given community to benefit from health services, if the community could make every possible advantageous intervention, is always far greater than what the community can realistically achieve with its available resources. According to Williams (1978, 1988, 1993), the economic approach demands choosing which members of the community to receive beneficial health interventions and which members do not. The economic approach recognizes that a single community cannot meet the needs of all its members, but that interventions can do some of the community members some good. Since each community is forced to decide who gets what, others either wait or go without any health intervention. A community weighs competing claims of "need" or "ability to benefit", and inevitably this resorts to some form of rationing.

Assets-based Community Development

Historically, needs assessment of individuals, communities, and societies viewed these units first as troubled and deficient. This approach has fostered the perception among policy makers, researches, activists, health care professionals, patients and members of the community, that the communities, societies and individuals so classified, are characterized by crime, violence, gangs, drugs, joblessness, homelessness and with a large population depending on welfare. Studies by Kretzman and McKnight (1995) reveal that this focus on needs leads to creating "mental maps" of communities as problematic and deficient because they cover only the negative realities of the community. Then when professionals use these "need" maps to address the problems, they are likely to develop deficiency-oriented policies and programs.

Accordingly, Kretzman and McKnight (1993) suggest that if the views of all stakeholders, including professionals and community members, health care consumers, managers, and planners, are identified and incorporated in developing interventions, stakeholders would be more likely to buy into the plans, and health care would be more accessible and sustainable. A collective approach that builds local assets to develop plans is needed. The collective Asset-based community development (ABCD) approach is often overlooked in health care, but currently it is becoming recognized as crucial in telling the full collective story of the community's assets for their health care system. The ABCD approach is especially applicable when developing institutionalized programs for persons with SA problems at the community re-entry process.

In addition, Kretzmann, McKnight, Sheehan, Green, and Puntenney (1997) argue that, because the model incorporates collective perspectives, the ABCD approach can reveal unrecognized assets that can enrich and make interventions sustainable and lead to better outcomes. By contrast, programs developed by using "Needs maps" start activities that teach local populations to value services as an answer to their problems. As communities become environments of services, they affect the behavior of community members. The members come to understand themselves as essentially clients, and the communities understanding themselves as a group of people with special needs, consumers of services and dependent on outsiders. Furthermore, community members may perceive "the system" as oppressive and seek to resist or outwit it, by informal or illegal means, to survive. Because some communities came to see themselves as an endless list of problem and needs, their system were characterized by fragmented solutions. Thus, "needs maps" deny the basic wisdom of community, which sees problems as closely intertwined with symptoms caused by the breakdown of the community's capacity to solve its own problems.

Kretzmann and McKnight (1993) observe that when "needs maps" are applied, the system focuses on allocating resources to services instead of to community residents, like patient-centered medicine, thus, weakening local leadership. Persons who exercise leadership are able to access internal and external resources

for the good of community, but a “needs map” does not allow local leaders to build on their community’s inherent resources. The leaders are forced to work with systems that devalue them, their neighbors and their community. If “needs map” is only a guide and no attempt is made to capitalize on the community’s assets, the communities become trapped in a perpetual cycle of dependency that focuses on individual members as clients. “Needs maps” are focused on guaranteeing survival, but they do not bring about either social change in the community or behavior change in people. “Needs maps” breed hopelessness, preventing community members from planning for the future.

A study by Kretzmann and McKnight (1993) provides alternative understandings of a community that its members are assets themselves, who experience changing needs and can solve their needs with local assets and some external support. Hence, the study proposed an alternative to the “needs” model, namely the Asset Based Community Development (ABCD). Through the ABCD approach, community programs are built on local capacities, skills, and assets. Evidence shows that replacing “needs” maps and deficiency models to approaches based on community capacity affirms that community development takes place where only stakeholders of the local community are committed to the program and invest themselves and local resources. Furthermore, since external resources available to a community are always diminishing, it makes more sense to develop local internal assets. Therefore, Benson (1993) has observed the ABCD approach strengthening local human and physical capacities related relationships, resources, opportunities, and experiences as well as the programs and policies that help the community bring up competent, connected, and successful individuals.

Kretzman and McKnight (1993) reveal that the ABCD approach identifies a set of environmental and intrapersonal strengths known to enhance educational and health outcomes for specific populations. The items used to community assets are presented as health-enhancing resources over which communities have considerable control (Benson, 1993, 1997; Benson, Leffert, Scales & Blyth, 1998; Benson, Scales, Leffert & Roehkepartain, 1999). Although still evolving, ABCD describes the nature and dynamics of places and settings

that provide a constant and equitable flow of asset-building energy for a specific population. In a number of studies, Benson (1997, 2002, and 2003) reveals that developmentally-attentive communities have multiple pathways that enhance asset-building capacities at the individual, community and social systems in a given community. These pathways help provide a taxonomy of the environmental and psychological strengths that enhance the health of a specific population within a community and provide the entire community and its subsystems with a uniting path and language.

The ABCD approach is built on principles of valuating and mobilizing individual and community talents, skills, and assets, instead of focusing on the needs and problems of an individual and community (Kretzman & McKnight, 1993). ABCD can therefore be applied as a community-driven development approach to social issues. The model identifies and analyzes the community's past success and strengths, as well as people's confidence in their own capacities, thereby inspiring social action. The model further taps into community strengths by recognizing social capital and its value as an asset in health-care delivery and access. The ABCD model, therefore, is important to help a community achieve goals that are related to social capital as an asset in health care delivery and consumption. The ABCD model is also advantageous in that it takes into consideration informal linkages of long–term relationships between community associations and external institutions. Because the ABCD approach empowers the community and gives people ownership over their health care program, the community begins to expand its own programs. Furthermore, the ABCD model promotes collaboration with civil society by engaging people as productive citizens (rather than clients) and making local and national government effective and responsible. The ABCD approach also strengthens the civil society in the community by continually engaging members of the community as they acquire practical experience through a praxis action.

A study by Cunningham and Mathie (2002) outlined three core elements of the ABCD approach that local communities use to create successful health care systems. First, are the collective community assets which

include human, natural, financial, physical, social and cultural assets locally available and at the local community's disposal. Second, Cunningham and Mathie (2002) consider ABCD a viable and sustainable instrument of development because it emphasizes a holistic understanding: the model creates, sustains, and passes on the development approach to future generations toward increasingly more adequate assets and their effective use. The policies and programs that the community develops build assets for the long-term health and well-being of the community. Third, in the ABCD approach, collaboratively, community members are the principal agents of development, so that the people acting in and with the government, private, and not-for-profit sectors collaborate to fulfill locally chosen goals with locally available resources.

Assets and Needs Specific to Substance abuse

A study by Borkman, Kaskutas, Room, and Barrows (1998) indicated that substance abuse and alcoholism occur progressively through hazardous and intrusive stages of use, abuse and dependence. Individuals, families, communities, and larger societal life stressors play different but collectively cumulative roles. In their compendium of clinical textbook on addiction disorders, Beck, Liese, and Najavits (2005) observe that substance abuse has a significant mortality rate. Substance abuse related deaths are directly and indirectly related to addiction, higher than any other single cause of death in USA, besides financial costs which are over $300 million annually. Therefore, addiction disorders and SA treatment and recovery health care delivery are at their best when they supply assets that address all the aspects and consequences of SA, and more effective if they are related to the developmental stages of SA problems. This process is often demanding, imposing self-controls skills, and requires a great deal of work to overcome social deficits, and health and social psychological impairments. According to Zastrow and Kirst-Ashman (2007), social science theories and practices have best outcomes when they are applied in a lifespan context. So that application is applied covering human development and behavior theories within the context of family, organizational, and community systems

incorporating, biological, psychological, and social pathways. Then health outcomes are impacted more effectively at the different lifespan stages with an emphasis on strengths and empowerment.

A 1990 study by Borkaman, Kaskutas, Room and Barrows concluded that SA problems, treatment, and recovery can happen in either or combination of stages following four pathways: (1) inpatient and/or outpatient medical/chemical dependency treatment programs that use of methadone maintenance for opiates, (2) residential therapeutic communities that included behavioral changes as well as treatment services, (3) recovery programs that work are based on peer groups or self-help groups such as the AA, NA, and (4) many forms of peer settings such Oxford housing recovery program. Each of these pathways address specific needs employing specific assets for people in their stage of recovery. Therefore, one should identify the major assets available in different treatment and recovery programs. The process also helps reveal the needs that are left unattended and multiple levels of individual, family, community, and social structures affected by addiction problems. This study measured these assets by the utilization of the asset-based community development indicators.

Theoretical basis Perspectives Multi-level Assets

Four related theories identify common social processes that protect individuals from developing SA problems; social control theory, behavior economics and behavioral choice theory, social learning theory, and stress and coping theory. These theories together with psychosocial approaches to substance abuse problem provide a range of frameworks for better understanding of SA. According to Finney, Noyes, Coutts and Moos (1998), the efficacious value of psychological treatments such as the motivational interview (MI) and motivational enhancement therapy (MET), 12-step facilitation treatment (TSF), cognitive- behavioral treatment (CBT), behavioral-oriented family counseling (BFC), contingency management (CM), and community reinforcement approaches (CRA), is demonstrated by clinical evidence. What is less known, however, is why and how the treatments based on these theories affect and effect recovery.

According to social control theory, strong bonds with family, friends, school, work and other aspects of traditional society motivate individuals to engage in responsible behavior. Hence, these bonds become buffers, deterring individuals from risk behaviors like substance abuse. Through these bonds, the community monitors and supervises the individual, directing his/her behavior towards approved goals. When these bonds weaken, individuals are less likely to adhere to conventional standards and become more likely to engage in socially undesirable behavior such as substance abuse. Hirsch (1969) explains that when families are disrupted, individuals are weakly attached to social standards and are inadequately monitored. In addition, broken family, community and social attachments lead individuals to associate with other individuals who, from the perspective of social standards, practice deviate behaviors. According to Amato and Afifi's (2006) study, the state of family units impacts members of the family throughout the lifespan, so that offspring who grow up in low-conflict married families have the highest level of well-being and are found to be closest to both parents. On the other hand, with high levels of divorce and marital conflict, children were no better off if they were close to both parents or to one parent only. For adolescents *relationship triangulation*, or the interaction of the child and both parents, can be a risk factor that predisposes the youth to adolescent problem behavior, particularly internalizing problems, which are a result not only of triangulation but also adolescents' perceptions of peer rejection. All of these relationship interactions and outcomes suggest the important developmental role of adolescent anxiety, depressive affect, and withdrawal, all factors which are associated with substance abuse problems throughout the lifespan (Buehler, Frank, & Cook, 2005).

According to social control theory, social disorganization precipitates a lack of supervision and vigilance in other community institutions, such as schools and places of work, where the community can best provide its members with bonding, support, structure, monitoring and goal directions, all of which are assets in SA prevention, treatment and recovery.

Bickel and Vuchinich (2000) found that behavioral economics or behavioral choice theory is linked to social control. In behavioral choice theory, the essential means of social control around protective factors is about rewarding individuals for engaging in activities that replace unhealthy related behaviors, such as those that increase likelihood of SA. The rewards protect individuals from exposure to substance abuse and opportunities to use the substances and prevent those who may have already abuse substances from slipping into further abuse. Behavioral economics theory postulates that individuals who choose a behavior, such as abusing substances, lack opportunities for rewarding involvement in positive activities like education, employment, religious engagement, or physical activities. Such positive activities may provide a socially acceptable alternative to using drugs to elevate mood and decrease anxiety.

Since Africa has for most part preserved most of its traditional social institutions, which should be assets for people with SA problems or should insulate people from SA based on theories of behavioral economics and behavior choice, we should expect less SA problems. For the essence of behavioral economics and behavioral choice are in the fostering involvement in traditional activities that provide rewards and protect individuals from the temptation to use and misuse substances. Africa would expect smaller number of cases in issues related to alcohol and drug use problems.

Multiple studies have use social learning theory to explain substance use as a consequence of substance-specific attitudes and behaviors of adults and peers who model behavior for others (Bandura, 1977; Maisto, Carey, & Bradizza, 1999). Modeling takes place when observing and imitating substance-specific behaviors, and the behaviors that are modeled are strengthened by social reinforcement and expectations of positive consequences from substance abuses. In essence, social learning theory maintains that substance abuse is a function of positive norms and expectations modeled by family members and friends who engage in substance abuse. Family members and friends can also model assets that prevent risky behaviors.

In addition, Kaplan's (1996) stress and coping theory suggests that individuals in stressful situations with family and friends, school, or work, eventually become alienated and turn to substance abuse. Substance use is most likely among those who lack self-confidence and coping skills and try to escape distressing or alienating situations. Individuals who have achieved enough self-confidence coping skills to manage high risk situations and general life stressors have assets, otherwise, they have needs that must be met as recommended in the stress and coping theory.

In their study, Fiorentine, Nakashima, and Anglin (1999) demonstrated that recovering person's involvement is positively associated with positive treatment/recovery outcomes. This engagement can be measured in terms of the duration of the person's efforts over time and the intensity of one's participation. The outcomes are determined by individual characteristics such personal demographics, treatment history, criminal history, mental health, and accompanying mental attitudes and expectations. Every person possesses positive characteristics. All people in this situation have assets that improve their likelihood of recovery, but all people also have lack assets and have flawed characteristics and therefore anyone trying to help, the person and all the professional or non-professional helpers have to pay attention to these flaws if recovery is to be achieved.

Past experiences with treatment can prevent future engagements with treatment. How one perceives treatment, ancillary services, and relationship with counselors and peers will influence just about every aspect the treatment and recovery process. When these relationships are helpful toward recovery outcomes, they are assets. Otherwise the relationships need to be remedied, or are gaps that need to be filled. Greater personal engagement results in more favorable outcomes. Recovery from addiction depends in part on personal assets, motivation, hope, vision and some individual, perhaps collaborative, sense of efficacy that promotes a transformative process.

Bandura's theory of self-efficacy, and the conceptions of others of "collective efficacy" offers useful understandings of the human processes that change behavior by beginning with small specific steps that begin at

an individual level (Bandura, 1977, 1981, 1982). Bandura (1997) defines self-efficacy as the conviction that one can successfully perform the behavior required to produce the desired outcome. In addition, Bandura points out that there is a difference between self-efficacy and outcome expectations. Self-efficacy expectations are the person's own expectations that a given behavior leads to a certain outcome. For example, an expectation may be to attain sobriety, and behavior that leads to that is connected to join and attend groups such as AA, and be in places and participate in activities that make it likely to maintain sobriety. The concept of self-efficacy is essential in understanding both the assets and the needs of any person entering treatment or recovery. Self-efficacy is always a situation-specific confidence that a person can cope successfully with high-risk situations. In one study, Major, Jason, Ferrari, Venable, and Olson (2002) demonstrated that alcohol drug abstinence self-efficacy and alcohol drug specific abstinence social support were positively related, and may be connected, to the time residents stayed in Oxford Houses (OH). Oxford Houses, from herein out referred to as OHs, are a network of residential recovery houses without professional help that are democratically self-run, self-supporting, and operate in an environment that is compassionate but zero-tolerant to substance abuse. What his means is that this housing setting is run under many of the same principles as a 12-step recovery group like Alcoholics Anonymous or Narcotics Anonymous. When OH residents are striving toward sobriety, the houses can be effective and conducive environments recovery and self-efficacy in other aspect of the residents' lives.

Schrank, Stanghellini, and Slade (2008) articulate how several spiritual qualities are linked to the psychological concept of self- efficacy. Both the spiritual and psychological processes, hopes and values, are critical components of recovery. Schrank et al. (2008) define hope as a future oriented expectation of attaining all of it—personal goals, relationships, and spirituality. Hope is particularly important as it serves both as a means and a goal of recovery. As a means, hope initiates the process of recovery; as a goal it acts as an outcome to be achieved and, once met, it can help maintain recovery over the long-term. Consequently, hope gives meaning. According to Mathis, Ferrari, Groh, and Jason (2009), hope has two components: (1) agency, or

goal-directed energy, and (2) pathway, the ability to find ways to a goal. From a subjective point of view, hope provides a basis for setting goals and finding a realistic means for achieving them. Individuals with a complete sense of hope tend to show resilience and courage, and they can take better advantage of supportive, external resources.

People with a history of alcohol and drug problems often face tough odds when they start any treatment or recovery program. Complete sobriety from drugs and alcohol can be an extraordinarily difficult life challenge, requiring a lifelong commitment. Hope is therefore a core asset for recovering individuals throughout their lifelong journey. People with hope have internal sources of agency and goal-directed energy that help them achieve sobriety (Snyder, Harris, & Anderson, 1991). A person with hope brings greater self-regulation (i.e., will-power) to the challenge of achieving recovery from SA problems. This asset of agency or goal-directed energy can find and carry out strategies to overcome obstacles and learn skills to handle the triggers that put a person at risk of relapse. With hope people are better able to develop strategies that can help them meet inevitable, situational threats (Marlatt, 1996).

Fishbein (1967) and Ajzen's work on theories of reasoned action planned behavior, both elaborating on the relationship between attitudes, intentions and behaviors, are relevant here. Understanding recovery in any culture requires an understanding of people's perceived control over their behaviors, particularly in situations where they have little volitional control. These classic social psychological theories focus on individual motivational factors as determinants of the likelihood of performing a specific behaviors, given a primary predictor of behavior is clearly "intention". Intention itself is determined by the personal attitude toward the behavior and social normative perceptions regarding the behavior. SA problems and any hope of recovery require considerations of personal attitudes and intentions and normative and other cultural considerations.

Both theories, according to Montano and Kasprzyk (2008), are about how attitudes are determined by beliefs about outcome of behaviors and behavioral beliefs, modified by his or her evaluation those attributes. Hence, persons who hold strong beliefs that positive-valued outcomes result from performing the behavior have a positive attitude towards the behavior. In the same way, a person's subjective norms are determined by one's normative beliefs, such as whether important referent individuals approve or disapprove of the behavior, modified by one's motivation to comply with those referents' expectations. A person who believes that certain referents think they should perform a behavior and is motivated to meet their expectations hold a positive subjective norm. TRA theory assumes that the most important direct determinant of behavior is behavioral intention. How successful a behavior theory is depends on the degree of volitional control, the individual can exercise over the behavior. Building on TRA theory Ajzen (1985, 1991, and 2005) developed TPB by defining perceived behavioral control, which accounts for factors outside an individual's control that may influence one's intentions and behavior.

The relationships among the self, others, and God are currently being explored as key elements in treating drug abuse. According to Conrad (1985), Dyson, Cobb, and Forman (1997), and Fish and Shelly (1988), when an individual attains "right" balanced relationships between self, others, and God, one attains a spiritual wellbeing. Hay (1989) explains that a person's inner resources are enhanced by spiritual well-being, and Moberg (1984) proposes that the health of an individual's inner resources is largely a function of his/ her spirituality. Spirituality and well-being as resources that have been present and successfully used over the years in substance abuse treatment and recovery. According to Dyson, Cobb, and Forman (1997), a framework of spirituality consists of the self, others, and the ideas of "God" and the interrelationship between them. With this overarching framework, the individual's themes and meanings of hope, relatedness, connectedness, beliefs, belief systems, and expression of spirituality find their best expression. Studies of Alcoholic Anonymous programs (AA) suggest that spirituality plays a pivotal role in recovery from alcohol. Kelly, Stout, Magill,

Tonigan, and Pagano (2011) found that attending AA meetings was associated with increased spiritual practices, even among those who began with few spiritual practices. In summary, the constructs of hope, behavior intention, performance attitude and spirituality are important assets in alcohol and drug treatment and recovery were measured by use of the Alcoholic Anonymous Intention Measure (Zemore, & Kaskutas, 2009).

Social support Assets

According to Cobb (1976), social support is the attention and information leading the subject to believe that a person is: (1) cared for and loved, (2) esteemed, and (3) a member of a network of persons who have obligations to each other. First, information leading the subject to believe that one is cared for and loved is transmitted in intimate situations involving mutual trust. Murray (1938) argues that at this level an individual's social needs, nurturance needs and affiliation needs are achieved. Second, information leading the subject to believe that he/she is esteemed and valued is effectively proclaimed in public, which leads a person to better self-esteem and reaffirmed personal worth. Third, information leading to the subject to believe that he/she belongs to a network of persons with obligations to each other is most convincing when it is shared with persons in the network. These components of social support are assets that provide a strong basis for recovery and maintaining sobriety. This study utilized the Important Person Inventory (IP) developed by Clifford and Longabaugh (1991) to measure participants' social network support.

Cobb (1976) and Cohen and Syme's (1985) studies found that social support factors are important determinants of susceptibility to diseases in general, including heart diseases, cancer, and psychiatric disorders. Community-building assets are found in interpersonal social relations and actions that take place in the families, neighborhoods, schools, congregations, and substance abuse recovery-related organizations. These local social cultural infrastructures build the community and impact the health of the local population. As the community

develops, the assets of the larger society comes into play when society brings the community social norms, public policy, rituals, and media into human interactions.

African Context of Assets for SA in Kenya

Most African nations have a health care system was inherited from colonial systems, which was skewed towards a biomedical model of understanding health care. Besides, the model structure and process was that of a "top down" system, in which most of the national resources are channeled into primary health care through government systems. Under this model, local populations are likely to be disenfranchised in health care as in many other aspects of development. This gap is even greater in recovery and treatment programs for people with alcohol and drug problems, which like other mental health programs are often ignored in health care planning at the national level.

Alcohol and drug use problems in Africa are further exacerbated by the lack of well-documented evaluation and research. Specifically, a contextual research and evaluation of needs and a corresponding evaluation of available local assets information health care can empower and solve local problems sustainably. African states vary in their forms of political economy management and arrangements; these differences are also reflected in organization management practices. For example, Ethiopia and Mozambique demonstrate a socialist style of society management (Good, 1988). Due to this management tendency, these socialistic states tend to seek to provide needs and social development through mass mobilization and a centralized control of economic and political activity. On the other hand, countries like Kenya and Ivory Coast are more market-oriented with a substantially decentralized control over economic and social life, and have an eclectic approach to participation in the ownership of the means of production and distribution. Health care is equally influenced by these national large management styles, so that in more market friendly economy, growth of treatment and recovery settings tend to be initiatives of local communities and individuals while in more socialistic settings,

populations wait for government action, which often takes long time to come while government tries to meet traditionally thought responsibilities with meager resources.

In the Kenyan situation, like most other African countries, drug and substance abuse permeates every aspect of the society and threatens the very fabric of the nation. Accurate information, such as the extent and pattern of use for various drugs and substances by different segments of the population, are critical to meet the challenge Mugisha, Jacqueline and Bilhah (2003), in collaboration with the National Authority for Campaign against Alcohol and Drug Abuse (NACADA), is the closest study Kenya has come to evaluating local needs in regards to the area of alcohol and drug treatment.

The Mugisha, Jacqueline and Bilhah (2003) study sought to understand the nature, extent, and patterns of alcoholism and drug abuse in Kenya. The overriding aim was to establish the extent of use of various drugs and substances to develop programs based on evidence and involving most of the stakeholders in the local communities. Among its findings were that drug and substance abuse was a major social problem in Kenya. The results suggest that a majority (73%) of Kenyans held positive attitudes toward consumption of licit drugs such as cigarettes (72%), other tobacco products (68%), packaged liquor (72%), and traditional brews (69%), while 54% of the population had a favorable attitude toward Miraa (i.e., Khat) consumption.

In addition, the Mugisha, Jacqueline and Bilhah (2003) assessment found that peer pressure and the availability of drugs in the community were associated with drug and substance use problems among segments of the Kenyan population. This study called to attention the need to reduce drug use, improve prevention, engage in behavioral change, and develop interpersonal and relationships communication skills training. The Mugisha et al.'s (2003) study further recommended continuous and consistent review of national drug and substance abuse policies.

Alcoholism and Drug Treatment and Recovery Settings

In the early 1960s, Africa was struggling for political and economic independence, making it difficult to devote resources to substance use problems. In contrast, in the USA, according to Fields (2007), the government supported treatment programs that were administered in four settings: therapeutic communities, outpatient methadone clinics, outpatient drug-free programs, and university-affiliated clinic research centers. In the study, people with addiction disorders suffer from intense and often-uncontrollable cravings for the drug, and demonstrate compulsive drug seeking and tenacious use in the face of shattering consequences. Besides these long-term damages that individual abusers experience, the course of treatment and recovery builds on individual assets and addresses individual needs in local community resources afforded addicted population and their families. Treatment, therefore, takes place in various settings, using various approaches that last for various periods of time.

Hence, when a society provides more equally diverse assets to meet the needs of their clients in SA, the problem of SA is mitigated by the presence of multiple sources and resources made available. Since drug addiction is a chronic disorder with occasional relapses, short-term interventions in general are not sufficient. Many treatment programs are long-term processes that apply multiple interventions and use regular monitoring. The National Institute on Drug Abuse (NIDA, 1999) points out that many evidence-based approaches include behavioral therapy, which require individual or group counseling, cognitive therapy, contingency management, medications, or combination of these. The combination depends on the drug being abused and the needs of the individual or group being treated. In addition, the programs provide other services to meet individual needs. The NIDA (1999) study concluded that group therapy can provide social reinforcements to change individual's behavior, and the leading behavioral treatments were contingency management and cognitive-behavioral therapy. These types of interventions in behavior therapy are today adapted to group settings to improve efficiency and cost-effectiveness.

Drug Addiction Treatment Settings

Treatment for SA problems includes medication, behavioral therapies, and other techniques. Centers for treating drug addiction differ from one to another depending on many factors, which include being either nonprofessional or professional treatment settings who follow up patients to maintain compliance with their daily treatment. Medication takes the form of using buprenorphine, methadone, and naltrexone, and these are common, as are therapies that utilize such interventions as Nicotine replacement using patches, gum or bupropion. Combined with counseling and other behavioral therapies, medication can be effective for many abusers. The most common treatment for SA is the methadone maintenance, used in ambulatory treatment for opiate dependence. According to Gestein and Harwood (1990), patients treated with methadone report responsiveness to other interventions, such as counseling, environmental changes, and support services.

There are also outpatient non-methadone programs with alternative treatment processes involving different underlying rationales, staffing, and other psychoactive prescription medications. Non-methadone programs consist of courses offered in six-month periods, coupled with two to three visits per week for individual or group psychotherapy and counseling. Patients in outpatient non-methadone treatment are usually not opiate addicts, but are more likely to be less impaired and are more likely to have minimal criminal histories, reports Gestein and Harwood (1990).

Moreover, Gestein, and Harwood (1990) point out that patients with alcohol and drug problems are also treated in hospitals and often the process assumes the form of residential chemical dependency programs. Patients receive on average 3 to 4 weeks of treatment, followed by up to as many as 2 years of prescribed attendance at other interventions, such as self-help groups or weekly therapy groups. Chemical dependency programs mimic the 12-step model of individual change as employed by AA program. Chemical dependency treatment focuses largely on people with alcohol abuse problems. Hospitals can also administer drug

detoxification in cases of emergency substance overdose. Drug detoxification is only a gateway to treatment and lifelong recovery process.

Therapeutic Communities (TCs)

Therapeutic communities (TCs) are essentially residential programs with a 9 to 18 months course of treatment, followed by continued contact during a variable period of reentry to community and larger society. In TCs, people with alcohol and drug problems live together in a family-like atmosphere, helping each other in their recovery within a structured lifestyle. Fields (2007) explains that these group experiences are the means of therapy and behavioral change. The principles of AA and its 12-step process as well as individual and group beliefs in honesty, drug abstinence, self-reliance, and personal responsibility through mutual examples are fundamentals of TCs. TCs strictly prohibit drug use and violent behavior while in recovery, especially within the community and advise to stay away from these activities in the community. Members of the TC are tested for drug use, and those who test positive can be expelled from settings.

A study by Gestein and Harwood (1990) revealed that TCs involve high structured blends of psychotherapy, behavioral change, an internal hierarchy of jobs and progressive responsibilities, a diversity of medical, educational, and vocational services, and close supervision of clients. In addition, Holland (1986) points out that TCs effectively enable clients to recover and provide a repertoire of counseling activities useful for individuals or groups, and these counseling interventions can be used with the clients' family too. In two separate investigations, Holland (1986) and Kooyama (1993) identified TCs' functional characteristics and activities that best promote recovery. Both studies concur that, for example, work assignments and required departmental meetings are important functional activities in treatment and recovery process. These activities are hierarchically structured and coupled with rewards that are given by the roles models to help the clients develop personal responsibility. In addition to these internal functional activities, Holland (1986) explains that external productive activities, such as employment and education, that impacts on improved vocational skills

also lead to a greater likelihood of recovery. In general, Holland recommends scripted performances, which may have occasional pulls ups, challenges to new behavior habits, confrontations, and personal narratives.

However, Holland (1986) cautions that even with good activities during the time one is in living in the TC, if clients do not engage in reentry or support activities such as learning vocational skills and behavioral skills, relapse is likely. These may include job-seeking skills, financial management skills, and job counseling support. Moreover, clients need interpersonal activities that boost relationships, particularly to replace old friends with whom they used substances. In regards to this, Holland (1986) recommends that people in recovery acquire health- and sobriety-supportive recreational and social skills. To be helpful and positive, from the start interpersonal social interactions must be intense and be context conscious.

The Kooyman (1993) study identified characteristics in a given TC that are likely to lead to recovery from substance abuse. These characteristics can efficiently and effectively substitute for family support, especially for people who come from families that are enabler of substance abuse behavior. According to Kooyman (1993), a TC guided by a consistent philosophy, has a therapeutic structure, and has a balance between democratically managed and autonomous therapy, can be helpful in treatment recovery and reentry. Both Holland and Kooyman recommend that a TC use social learning, social interactions, and support skills and strategies to enable people with SA to learn through crisis as an important characteristic.

In addition, effective TCs are therapeutic systems that impact TC activities that enable a person who abuses substances to take personal responsibility for his/her own behavior, and internalize a positive value system. In addition, the person will be able to employ positive peer-influenced learning to help clients to understand and express their own emotions. The TC should enable its residents to appreciate a normal life paradox, by identifying negative personal life attitudes and changing them to positive attitudes to improve relationships with their family. In Ramirez's (1974) study, additional components of spiritual and managerial

therapy, the importance of a higher power, ritual participation, preaching and public confession are supported as characteristics important for recovery in the context TCs.

Self-Help

Another pathway to recovery from SA problems is the self-help group. These mutual support groups (also referred to as peer managed self-help groups) are now common pathways, which many patients with substance abuse utilize to start and remain sober. As long as 150 years ago, individuals organized self-help groups to meet and overcome social crisis (White 1998). For example, in 1860s, a group called Washingtonians in Baltimore, welcomed anyone who pledged not to drink. In the early 1920s through the 1930s, some Christian belonged to what are called Oxford Groups, although not exclusively aimed at recovery from alcohol and drug abuse, these groups provided its members with programs for personal change (Kurtz, 1990). These self-help principles for substance abuse populations have over time contributed immensely to the growth of Alcoholic Anonymous (AA), which has become a model for other self-help groups today. In 1935, AA movement began a separate self-help group specifically for individuals with Alcoholism. AA developed its policies based on dealing with alcoholism as well as being fully self-supportive (Alcoholic Anonymous, 1953). In the United States today, AA includes more than 100,000 groups and two million members. Internationally AA operates in more than 150 countries (AA, 2001). AA is the oldest 12-step mutual support group, serving people with substance abuse problems and their families.

Based on the 12- step model, all self-help groups emphasize abstinence and guide their members through 12 core developmental “steps” to recovery (AA, 2001). Other features of self-help groups are helping members to take in recovery as they share their personal stories, experiences as way to self-discover and help others, and recognize higher power in their lives as means to recovery and sober lifestyle. Some 12-step organizations and some offshoots of 12-step groups have no treatment component, but offer recovery-oriented approaches to care for the people who abuse substances. According to Humphreys (2004), members provide

social, emotional, and informational support to each other to maintain sobriety while in recovery. Hence, mutual groups are assets in the form of support systems because they help individuals take responsibility for their alcohol and drug problems and achieve their own sustained health, wellness, and recovery.

Some of the self-help groups address specific substance (e.g., Narcotics Anonymous, Chemical Dependent Anonymous, Cocaine Anonymous, and Crystal Meth Anonymous). The 12-step approach has been adapted for people with co-occurring substance abuse and mental disorders, such as Double Trouble in recovery, and for families and friends of addicted persons, such as families of clients; Anonymous Al-Anon/A lateen.

In the current study, substance abuse is understood as a disorder of the whole person and that it affects the person in most of or all life functioning areas. The person has cognitive, behavioral, mood, and relationship problems involved at the individual, interactional, and community levels. His or her thinking is often unrealistic or disordered, values are confused, nonexistent, or antisocial and social skills, and reading, verbal, and marketable skills are not well developed. In addition, people who have abused substances often show moral or spiritual disorientation. Accordingly, De Leo (2000) recommends that a person with SA problems regain or improve destroyed responsibility, consistency, and accountability at the individual, interactional, and community levels. By first identifying needs at these levels, and then using them to improve both recovery settings and outcomes in communities, nations are better able to deal with substance abuse as a public health problem.

In addition, Marshall and Lang (1990) identified self-mastery as perceived personal control or simply self-control, and indicated that perceived control over situation outcomes is central to self- mastery. In order to achieve the goals that one has identified or desire or has considered, there are complementary resources in the confidence of one’s ability to effectively engage in situations toward a desired goal such as abstinence. Self-mastery is an individual resources characteristic specific to abstinence self-efficacy. In absence of models of

support systems, settings and means for people with SA problems in Kenya, it remains difficult for population to start meaningful recovery process and be confident enough to point out any occurring changes.

A person's ability and willingness to obtain and use health information is a core condition for effective participation in decision making about progressive health actions and service utilization. World Health Organization explains that the primary role of health education is improving skills at the disposal of an individual or community. Therefore, health information has to be available to any entity which is required to obtain health information in order to make informed decisions in relation to health choices. In turn this competency often referred to as "health literacy" increase cognitive and social skills which determine motivation and ability of individual or community to gain access to, understanding and make use of information in ways that promote and maintain health. However, in an environment where there is little health information, health literacy is reduced and people find it difficult to acquire assets in form of health supporting information.

A study by Godlaski, Leukefeld, and Cloud (1997) indicates that there are individual who recover without any contact with formal treatment or taking part in 12-step groups. Those who consciously seek treatment or any sort of help due to substance abuse related complications benefit from any interventions, and certainly get closely involved in 12-step groups. Although there are related rates of relapse both in general populations as well as severely affected population in substance abuse treatment, presence of intervention provides tested pathways to recovery as opposed to non-interventional pathway to recovery. In both cases, intervention and recovery without traditional interventional pathway, self-mastery plays core role. According to theory of planed behavior (TPB), applied to substance abuse studies, points out that a given behavior can be predicted from an individual's intentions to engage in that behavior. These intentions are predicted by the person's attitude, subjective norms and perceived behavior control. Like every other population with SA difficulties, there are Kenyans in recovery who haven't come into contacts with any treatment and recovery

programs, yet start recovery on their own and utilize available assets to remain sober. There is something about choice and naturally available assets that can support recovery.

Statement of Hypothesis

Hypothesis 1

Participants in "professional treatment", self-help, and usual care groups will report significantly different scores on their reported addiction severity index.

Hypothesis 1_a

Individuals in the "professional treatment group" will report higher scores in addiction severity index than those in the usual care group.

Hypothesis 1_b

Individuals in the e usual care group will report higher score in addiction severity than those in the self-help group.

Hypothesis 1_c

Individuals in the "professional treatment" group will report higher scores in addiction severity index than those in the self-help group.

Hypothesis II

"Professional treatment", self-help, and usual care groups will be significantly different in the reported individual abstinence intentions assets.

Hypothesis II $_a$

Individuals in the self-help groups will have higher individual abstinence intentions assets than those in the usual care group.

Hypothesis II $_b$

Individuals in the usual care group have higher individual abstinence intentions assets than those in "professional treatment"

Hypothesis II $_c$

Individuals in the self-help group will have higher greater individual abstinence intentions assets than those in "professional treatment".

Hypothesis III

"Professional treatment", self-help, and usual care groups will be significantly different in the amount of reported social support assets /resources.

Hypothesis III $_a$

Individuals in the self-help group will have more social support resources than those in the usual aftercare group.

Hypothesis III $_b$

Individuals in the self-help group will have more social support resources than those in "professional treatment".

Hypothesis III $_c$

Individuals in the usual care group have more social support resources than those in "professional treatment".

Hypothesis IV

"Professional treatment", self-help, and usual care groups will be significantly different in the reported community assets.

Hypothesis IV$_a$

Individuals in the self-help group will have more community assets than those in usual care.

Hypothesis IV$_b$

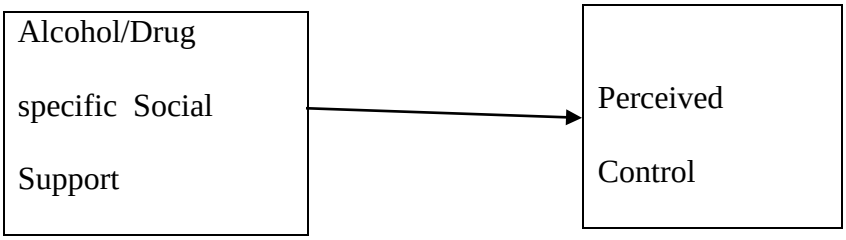
Individuals in the self-help group will have more community assets than those in “professional treatment”.

Hypothesis IV $_{c}$

Individuals in the usual care group will have more community assets than those in “professional treatment”.

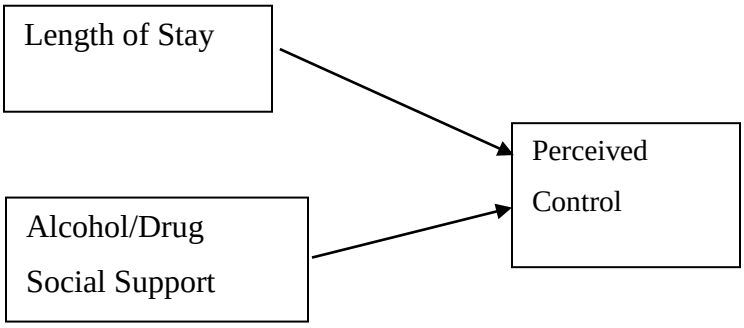
Hypothesis V

Alcohol/drug specific social support (ASSS; independent variable) will be positively related to perceived control (PC; dependent variable).



Hypothesis VI

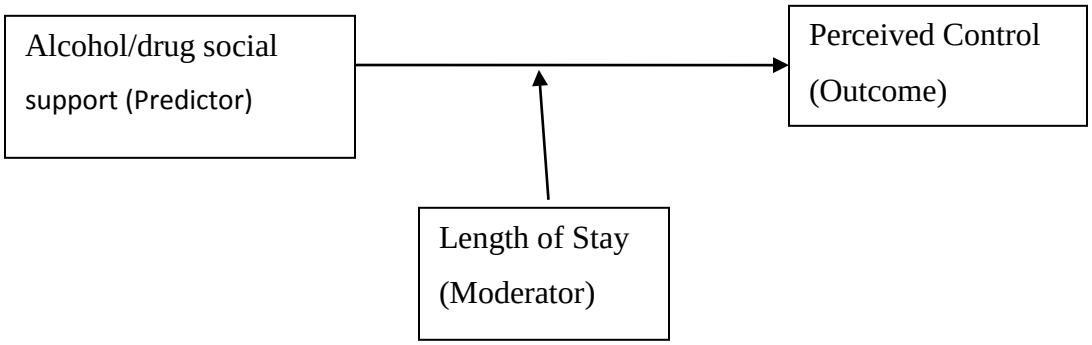
Length of stay (LoS; dependent variable) in the treatment/ recovery setting will be positively related to perceived control (PC; independent variable) after controlling for abstinence-specific social support (ASSS; independent variable).



On average, people who have stayed longer in a treatment and/or recovery setting will be more likely to have better perceived control. This is a group-level main effect for length of stay after controlling for abstinence-specific social support.

Hypothesis VII

Length of stay (IV) will moderate the relationship between abstinence-specific social support (IV) and perceived control (DP).



Research Questions

Question I. What levels of addiction severity do Kenyans in addiction recovery report?

Question II. What individual assets do Kenyans in addiction recovery report?

Question III. What social support do Kenyans in addiction recovery report?

Question IV. What community assets do Kenyans in addiction recovery report?

CHAPTER II

METHOD

Research Design

The complexities of developing community-based, substance abuse recovery and treatment settings pose multiple problems in experimental designs, data analysis, and interpretation of results (Sells, Demaree, Simpson, Joe, & Gorsuch, 1977). The prospective cohort-comparison design utilized in this study will help us understand the complex interaction between the characteristics of people with substance abuse problems and the assets available in different treatment and recovery settings (Cook, Thomas D & Campbell, 1979). The study utilized a cross-sectional fixed method design, in which qualitative questionnaire was used to collect data across three settings; “professional treatment”, usual care, and self- help. Addiction severity index, alcohol maintenance intention measure, important person- social support, and asset based community scores are the dependent variables. These measurements are similar to other clinical research and the multiple-comparison groups available in prospective cohort studies. In addition to descriptive information about the characteristics of the participants, the study provided support for evaluation and causal inferences based on needs and available assets. The design included data collection at the participant’s residence of treatment and recovery.

Study sample

The study was an investigation of whether there exist deferential gaps in resources and assets available to persons with alcohol and drug abuse problems in Kenya. The study further investigated if length of time in treatment or recovery settings moderates the relationships between social support and perceived control. Assets were measured at the individual, social network support and community levels. The study examined a sample of people in treatment and recovery programs who have the goal of achieving sobriety and abstinence from drug abuse and alcoholism. In particular, this study looked at the people receiving treatment in rehabilitation centers

under professional supervision, in self-help residential peer managed programs, and those at home with family (usual care).

Since this study was conducted in a non-typical research environment and with a population not exposed to research, the study took an exploratory approach. The goals was to gather date from which bases to seek elaborate, enhance, and clarify assets and needs of the consumers in treatment and recovery programs. Furthermore, because earlier research did not addressed all African region, and Kenyan population in particular and contextual assets and needs. The study hopes to build a contextual situation of treatment and recovery assets and needs for this population. A purposive sampling method was be utilized to select treatment settings, peer run residential recovery settings and to obtain their alumni contacts for those in usual care. The specific criteria for the sample are (a) individuals living in a professionally run treatment setting, (b) individuals in a peer self-help group residential recovery settings, (c) those continuing their recovery from substance abuse in their families, usual care settings

Participants

The study cohorts consist of participants drawn from professionally managed treatment settings (37.9%, *n* =83), self-run peer managed recovery settings (50.2 %, *n* =110), and from usual care (living with family) after treatment (11.9%, *n* = 26). The total sample of participants was N = 222, which is 56% response rate of the approximately 400 total participants in these three types of settings. The sample (N= 222 adults) consisted of 206 males (92.8%), and 16 females (7.2%), age range from 18-68 (M =36.9). The sample demographic characteristics; education, employment status, and marital status can be found in Table 1. In addition, Kenyan sample with substance abuse problems and receiving treatment and recovery do have other characteristics that are unique to population. The sample indicated that participants report on average 11.9 years of abusing substance and alcoholism, with range minimum 1 year and to maximum of 40 years of substance abuse.

Table 1 provides demographics description of the population of people in Kenya with alcoholism and Substance abuse problem. The sample reports on average 4-times weekly attendance of Alcohol Anonymous group program. All the controlled settings provide some form of required AA meeting attendance to all people in the settings. The rehabilitation and recovery centers in Kenyan have adapted, similar model of AA, the 12-steps Minnesota model that is duplicated around the centers.

Moreover, 82.4% of the sample reports someone rather than self supports them, and 17.6% have no other support. Majority of the sample, 67.1 % report having been referred to recovery and treatment settings by family or friend, only 12.3 % had self-referred, 8.2% were referred by someone else in recovery, 5% were referred by a treatment provider, 2.3 % by referred by work place, 2.3 % by probation officer/ court and 2.7% didn't report any referral to recovery settings. On average the sample reports a mean of 9.2 months of stay in their preset treatment and recovery settings.

The participants in this sample, unlike people in such settings in USA and most western nations, have not had experience with research in general, although this study was tailored to local Kenyan English dialect, the practice of answering question regarding stigmatized issue of substance abuse may have been uncomfortable. The fact of stigmatization of people with any mental health problems and substance abuse in particular impact on participant's disposition and responses to the questionnaire.

The participants are in treatment and recovery settings come to treatment setting through different pathways. Some come because family members bring them for treatment, others come on their own and a still smaller group are set by their employers. The "how" the participants get into treatment settings has a bearing on their readiness for treatment, their perception of the recovery process, and the assets available to each one. Because few resources are directed to treatment for substance abuse, the number of persons SA problems in treatment for substance abuse settings in Kenya is small compared to the number of persons who need treatment.

Settings of SA support

There were 8 different professional programs, which generally featured 3 month residential programs. Those entering the program with a severe addition are first given a detoxification program. Each of the programs was administered by trained professional staff, and they used a variety of group and individual therapies, as well as promoting self-help group attendance. However, the few resources employed in treatment are provided by profit-seeking business. Therefore, the cost of treatment is considerably higher than most Kenyans, who can hardly pay for primary health care, can afford.

Most of those in the usual care condition had been in treatment programs and were currently living with their families or on their own. There were only 3 people in this condition that had not been previously in a controlled treatment program. For the self-help condition, there were two settings, U-turn for Christ center and the Omar Project. There were 90 individuals in the first program and 20 in the second. The two settings started through local community initiatives to meet the needs of people needing a place for their recovery. The U-Turn for Christ center is a faith based substance abuse recovery setting, involving a self-help managed program that provides both housing and jobs.

This center focuses on faith relationships and encourages residents to model their lives along, a long time sobriety goal. This is achieved through abstinence stabilizing oneself through faith in God and values of Christian living program. There are 2 phases in this program. In phase 1, residents are provided with housing for a minimum of two months in a large community farm and live in attached dormitory housing. Only men are provided this program. Individuals in both phases of the program live in the same dormitory. While phase 1, residents have time to attend morning religious devotional activities, complete daily chores, engage in volunteer services and devote time to personal reflection during the evenings. They also go to self-help groups in the morning and evening. Phase 2 typically lasts for additional 6 months, and residents are allowed to work on a variety of tasks on the farm, and become a support group for those in the phase 1. The residents plant vegetables (e.g., tomatoes, onions, cabbage, corn, carrots, potatoes), water and care for them, and also harvest them when

they are ripe. Several cows for milk are also cared for by residents. Many are engaged in church activities with their sponsor the U-Turn Calvary church, which is located on the same grounds as the farm with dorm/recovery center. Following this program, residents have the choice to remain at the center, and assume more responsibilities on the farm. Residents can stay at this setting for up to one year, and then they go back to live with their families. Some residents get more involved in the Church, and either stay as staff in this setting or church settings. Sister churches provide funding for this entire operation, and other income is generated from sales from the farm. Some residents do have a certain amount of uncertainty about returning to the communities or families where they had begun using substances, where they might risk relapse.

Omar project is self-help Islamic faith based community initiative. This model has some resemblance to American Oxford House, although Omar project has a rented house where only new comers come stay for 3 months, but then they return to their communities. In other words, the house is intended for new comers in recovery, who receive support from those who have gone through the program. The major resources are the peer group and housing. After about 3 months, most residents go back to their families and become recruiters for next group of residents in need of recovery. Members of the house attend self-help groups, and have opportunities to learn life skills such as anger management. The members are all Muslims, and men live on one level and women on the other level. There is no cost for being part of this program, as the Omar Project relies on donations from a local mosque. Unlike U-turn for Christ, Omar project does not have farm as source of income and food.

Procedure

Recruitment

The data in this study were collected from 10 geographically representative regions settings that have people with alcohol and drug problems going through some form of treatment and recovery programs. Because people completed the survey in their own residential settings they were not intimidated, and responded freely. The participants gathered in a group at their normal meeting place at the treatment and recovery settings. After

5 minutes introduction of the study and accepting to take part in the study, participants were handed over study questionnaire which took 45 minutes to complete.

Over a long period, most of African countries have not taken mental health or substance abuse problems as urgent public health issues. Consequently, there is scarcity of resources allocated to substance abuse treatment programs. The few programs available provide minimal services and only a few are financially or geographically accessible by most of the people in need of treatment and recovery care from substance abuse. For example, Kenyan situation, although most people live in rural areas, most substance abuse and alcoholism treatment are in urban areas. Hence, to understand the assets and needs of such a population, a combined sources of research data from urban rural, suburban settings provide a comprehensive understanding of actual situation. The study, used purposeful sampling in order to include all three type of Kenyan geographical, rural, suburban and urban settings. The researcher made first contacts to the settings through phone, email, person to personal contacts requesting research visit. Later, through formal appointment the principal investigator visited each of the recruited programs to collect data. Clarify protocol appendix A). The researcher was present and available for any questions participants may have in the process of completing the questionnaire. All the data collected was stored by the researcher and under monitoring of the dissertation committee within the program's physical facility. As a means of ensuring quality, data and study material from all the participants was carried out in confidentiality and participants responses recorded in a de-identified questionnaire.

Measures

In order to have more objective data, the study obtained demographic information, evaluated individual's spiritual disposition assets, social network support available and the community larger assets available for people with SA problems. The presence of assets to an SA population, and most of all specific to actual circumstances such as need for substance abuse and alcoholism treatment and recovery, provide clients with reason to hope and start process of seeking health care. Important is the presence and accessibility of assets

that empower individual as agent of self-change. So that supported by assets that provide social support and community assets that combine to provide a holistic health services accessible to the people maintenance of health behavior and help when need is assured. The study utilized the following instruments to evaluate the presence of assets for people with substance abuse and alcoholism in Kenya.

In the study, participant's completed the **Addiction Severity Index Lite, 5th edition** (ASI-lite) McLellan et al. (1992) as part of the questionnare. The ASI-lite is different from the ASI in that it contains 22 fewer questions, does not use the interview severity ratings, and omits the family history grid. The ASI-lite can be completed in 20 minutes. This instrument has been reliably administered in face-to-face interviews and by telephone (McLellan et al., 1992, McLellan, Cacciola, & Alterman 2004). The ASI-lite assesses problems in areas commonly affected by substance abuse: medical status, drug use, alcohol use, illegal activity, family relations, and psychiatric condition. This study utilized the status five areas; medical, alcohol, drug, legal, family social and psychiatric status as independent variable to investigate potential problems commonly affected by alcohol and drug dependence

The ASI-lite records essential demographic moderator variables (e.g., gender, ethnicity) and status outcome items for employment, criminal involvement, and health status. In each of these areas, the objective question measures the number, extent, and duration of problem symptoms in the person's lifetime and in the past 30 days. Because this is a cross-sectional study, the ASI-lite was administered once to all the participants. The ASI scores used in this study were: ASI alcohol use (M = .36, SD= .14), ASI Family status (M= .36, SD =.12), ASI Legal status (M= .34, SD = .14), ASI psychiatric severity Status (M = .25, SD = .16), ASI drug use (M= .11, SD = .07) and ASI medical status (M = .08, SD= .16). For more information see appendix D.

Alcoholics Anonymous Intention Measure (AAIM) is a 17-item scale, which was developed through utilization of Ajzen's (2002) framework of the theory of planned behavior. The AAIM has four components based on the intention for acting, which is the core to actually taking steps to engage in the planned action.

While the theory of reasoned action (TRA) considers the relationship between attitudes, intentions and behaviors (Fishbein, & Ajzen 1975), the theory of planned behavior (TPB) considers situations in which the subject does not have complete control, but only perceived control over the behavior. According to both TRA and TPB, individual motivation factors determine the likelihood of performing a specific behavior and the best predictor of a behavior is the behavior intention, which is determined by the subject's attitude toward the behavior and social normative perceptions regarding the behavior (Montano & Kasprzyk, 2008). This study used the total sum score of the AAIM as an independent variable compared across the treatment recovery group differences.

The AAIM assesses readiness for successful participation in a 12-step group, for example, participation in Narcotics Anonymous or Marijuana Anonymous groups (Zemore, Sahara, & Lee, 2010). The attitude component relates to the likelihood of each outcome taking place from the 12-step group, and rates the desirability of each outcome. The subjective norm component reports the participant's opinion on the four key items regarding attendance in the 12-step group, and rates the subjective importance of complying with each. AAIM's perceived control component rates the extent to which participants believe they can handle each of the obstacles to attendance, and it rates importance of each in supporting their attendance. The component indicates whether the respondents agree to be able to handle each of the obstacles to attendance, and to rate the importance of each in supporting their attendance. Finally, the last three items address the intentionality component, and are intended to evaluate an individual's intent to attend 12-step group, whether they would try to attend, and whether they have planned to attend. All the items use seven point responses scales, and all ask whether the subjects have intentions to attend 12-step programs in the next year. The current study found that the Kenyan SA population have good assets towards alcohol/drug abstinence intention and scores were the following: in attitude component (M = 5.52, SD 1.78), in of perception of control (M = 4.94, SD 1.50) and AA

Norm adherence intention (M= 4.39 SD = 1.94). Perceived control was used as a dependent variable because of its relevance to being able to take action in resisting substance use.

Important People Inventory (IP) was developed by Clifford and Longabaugh (1991), and is based on the Important People and Activities Inventory as applied to alcohol, drug recovery. It is intended to measure general social support, the support for one's overall wellbeing, and combining structural elements, such as the number of people in one's network. Participants identify 4 important social contacts, and for each they examine the type and duration of the relationship, the frequency of contact, and the person's drinking habits. Subscales of the IP indicate alcoholic specific support, and it is a reliable predictor of alcohol abuse (Groh, Jason, Davis, Olson, & Ferrari, 2007b; Falkin & Strauss 1993; Longabaugh, Beattie, Noel, Stout, & Malloy).

Another subscale of the IP is network general support, is defined as the extent to which a participant associations are generally supportive of the person, are sensitive to his personal needs, helps think about issues or solve problems, and gives persons needed moral support. Beattie and Longabaugh (1999) found that general support is predictive of short-term drinking outcomes. A third component, social investment, records information about person's dependence on other people for various reinforcement or rewards (Longabaugh et al., 1993a). The final component, Contact with Network, which quantifies the person's contact with a person's network. For example, some people may have a lot of contact in a network with which they have little investment, while others have high investment despite infrequent contacts. Zywiak, Longabaugh, and Wirtz (2002) showed that general the important person scores are a reliable predictor of non-drinking. The study used 6 items from the social support network: types of support, amount support participants report from network, network feelings towards participant's self-help, treatment setting, and number of contacts in week, network reactions to no drug abuse, and not using alcohol. These were used as independent variables. This study found out that 38% of their four most important persons in their network provide emotional support (M= 1.21, SD = 1.30), 24% provide material support (M= .75, SD = 1.10), get 23% of network provide support in form of

companionship (M= .74, SD =1.21) and 15% of their network provide informational support (M = .46, SD = .86). (For more see appendix D for distribution of type of support, type of IP relationship distributions see appendix D).

Development Assets is a measure of a community's building blocks, such as family, neighborhood, school, group organizations, and congregations, which are essential for a community's health and well-being. The original framework of development assets identified and measured 30 assets. In later studies, focus groups were used to understand how developmental assets are experienced by specific groups in neighborhoods, including urban youth, youth living in poverty, and youth of color. The Search Institute revised 40 assets (Benson, 1996; Benson, Leffert, Scales & Blyth, 1998). These 40 assets are grouped into categories that influence community members' lives. In this framework, a category of external assets includes support, empowerment, boundaries and expectations, and constructive use of time. The category of internal assets are relationships and opportunities provided by fellow members of the community, such as adults or people with more experience, commitment to learning, positive values, social competencies, and positive identity. The last category are assets that tap into the competencies and values that are specific to groups, such as youth, develop internal resources into the group members, and help other members become self-regulating community members. In Oliva, Lopez, and Antolin's (2011) validation study, development assets had high internal reliability estimates: α =.93 for the entire scale, while each of the dimensions, support and empowerment, were; α = .91, attachment to the neighborhood, α = .91, security, α =.87, social control, α= .85 and activities α = .80.

This study utilized the asset based community total sum score as an independent variable to examine the treatment and recovery group differences in reported community level assets. The current study found that from the large community, people in treatment and recovery settings in Kenya report there is meaningful measure of social support (MD = 4.54, SD = 1.17), attachment to their neighborhood, (M = 4. 29, SD 1,78) feel secure in

their neighborhood (M= 4.27, SD= 1. 37) available activities to take part in (M = 4. 21, SD= 1.84)experience of empowering support (M = 3.64, SD = 1.56), see appendix D for more information.

Analysis

The major goal of this research study was to understand the availability of assets for people who are presently in drug abuse treatment or recovery systems in Kenya by examining the presence of the needs in resources that promote, or in the absence weaken, treatment and recovery. This study used a phased analytic approach that involved (a) measurement selection, (b) participants site familiarization (c) data collection and, (d) descriptive, and (e) cooperative analysis.

CHAPTER III

RESULTS

Cross cultural Measurement Validation

In order to culturally and contextually justify the use of selected psychometrics in settings, my study utilized a validation process to authenticate their use Kenyan context. The two instruments; Alcohol Anonymous Intention (AAIM) and Asset Based community development (ABCD), were originally constructed and developed through multiple studies validated in Western culture. The study utilized scale alpha reliability analysis, and found that all items were worth retaining. The AAIM scale reported good internal consistency ($\alpha = .83$). The largest increase in alpha would occur by deleting item 2, but removal of this item would increase alpha only by .031.The ABCD scale also reported a good internal consistency ($\alpha = .88$). The greatest increase in alpha would come from deleting item 28, but the removal of this item would increase alpha by only .01. With the assets based community development scale having an alpha of .88 and alcohol-drug abstinence intention measure had an alpha level of .83, providing us with confidence to justify use of these measures in a cross cultural context. For more details on internal validity of the utilized psychometrics, see Appendix C.

My study utilized an ANOVA data analysis technique to examine Hypothesis I through V. A correlation matrix was run to establish the strength and direction of the relationship between items in each of the two scales AAIM, ABCD. Table 1 reports demographic characteristics for the sample.

Table 1. *Analysis examining demographical characteristics of the Kenyan's sample of people in treatment and recovery settings.*

	M	SD
Variables		
Age	36.9	10.50
Length of alcohol-drug abuse (yrs)		
Treatment	11.88	8.95
Self-help	11.33	6.38
Usual Care	14.60	8.03
Length of stay (Months)		
Treatment	5.61	17.98
Self-help	6.97	25.82
Usual care	29.33	71.99
High school	55	24.9
Vocation school	4	1.8
Form 5-6th	7	3.2
Associate	5	2.3
College	78	35.3
Undergraduate	30	13.6
Graduate	24	10.9
Missing	1	.5
Marital Status		
Legally Married	60	27.3
Non-legal life partner	27	12.3
Separated	22	10.0
Divorced	13	5.9
Windowed	2	.9
Single	96	43.2

Missing	2	.9
Employment		
Full time	66	29.7
Part time	25	11.3
Self-employed	54	24.3
Unemployed	47	21.2
Student	26	11.2
Retired	3	1.4
On disability	2	.5

For the two scales AAIM, ABCD, only two items (Important person feel about 'professional treatment and self-help settings) had a Pearson correlation above .28. Because there were few significant correlations between items on the two scales, we did not need to run a MANOVA analysis and for Hypothesis I- IV, ANOVAs were used.

Hypothesis 1_{a-b}

To examine Hypothesis I that, groups in "professional treatment" self-help, and usual care groups would report significantly different scores on the addiction severity index, we used ANOVA one–way between subject analyses. The between-subjects factor, treatment recovery setting groups, had three levels: professional treatment site, self-help (peer managed) residential setting and usual care. To test for specific group differences, a follow up analysis using post hoc turkeys test were used.

Hypothesis I_a- I_b predicted that there would be a significant difference between subjects in the three settings (professional treatment, peer managed self-help settings and usual care) on the alcohol-drugs severity scores (ASI). There was no statistically significant effect of group membership in treatment / recovery settings condition ($F(2,214) = .019$, $p = .454$, $\eta^2 = .007$) (See Table 2).

Hypothesis II

To examine Hypothesis II, we evaluated whether the professional treatment, self-help, and usual care groups differed significantly in the reported individual assets scores. An ANOVA test, one–way between subjects was employed with group membership (professional treatment, usual care, and residential self-help) as

the independent variables, and individual's assets (AAIM) alcohol anonymous intentions as the dependent factor. There was no statistically significant effect of group membership and alcohol abstinence intention ($F (2, 210) = 1.796$, $p = .168$, $\eta^2 = .017$). (For more information, see Table 2).

Table 2. *Treatment recovery group membership for alcohol-drugs severity index, Alcohol Anonymous Intention, and Important Person Social Supports*.

Variable						
Addiction Severity ASI	SS	Df	MS	F	Sig.	η^2
Treatment condition	.04	214	.02	.79	.45	.01
Error	5.12	214	.02			
Total	5.15	217				
Alcohol Anonymous AAIM						
Treatment condition	1260.58	2, 210	630.29	1.80	.17	.02
Error	736881.63	210	350.87			
Total	74942.21	213				
IP Six-Months contacts						
Treatment condition	.31	2,209	.15	.06	.95	.00
Error	585.26	209	2.80			
Total	585.26	212				
IP- How Supportive						
Treatment condition	3.59	2,209	1.79	1.22	.31	.01
Error	306.86	209	1.47			
Total	310.44	212				
IP- Type of Support						
Treatment condition	2.43	2,211	1.21	.38	.69	.00
Error	676.32	211	3.21			
Total	2678.74	213				
IP-React to No Drinking						
Treatment condition	.80	2,209	.40	.40	.67	.00
Error	209.07	209	1.00			
Total	209.87	211				
IP-React No-Drug Abuse						

Treatment condition	.258	2,209	.13	.18	.83	.00
Error	140.02	197	.71			
Total	140.28	199				
IP Feel Self-Help place						
Treatment condition	4.44	2,211	2.22	2.94	.06	.03*
Error	159.44	211	.76			
Total	163.87	213				
IP Feel Treatment place						
Treatment condition	1.35	2,212	.67	.91	.41	.01
Error	157.34	212	.74			
Total	158.68	214				
Community level Assets						
Treatment condition	1368.56	2, 208	684.28	.641	.53	.01
Error	22204.91	208	1067.52			
Total	223412.46	210				

Hypothesis III

There was no statistical significant effect of the group condition (professional treatment, usual care self-help) and social support factor of frequency of contacts in six months [F (2, 209) = .055, p = .947, η^2 =.001]. There was no statistically significance relationship between the group (professional treatment, self-help, usual care) IP- How Supportive social network was to participants [F (2,209) = 1.221, p = .297, η^2 = .012]. There was no statistically significant difference between treatment recovery settings group membership condition and IP-Type of social support they receive from social network [F (2, 211) = .378, p = .685, η^2=.004].

There was no statistical significant found between group membership and IP-React to Non Drinking status [F (2, 209) = .400, P = .671, η^2 =.004]. Similarly, group membership to treatment / recovery settings did not have any statistical difference on how participants experienced their important person social networks' IP-React to No Drug Abuse status [F (2, 197) = .181, p = .834, η^2=.002]. There was no statistical significant difference in group condition and IP Feelings about Treatment place [F (2, 212) = .906, p = .406, η^2= .008].

The self-help setting had a marginally statistical group difference in how participants experienced network's social support in the form of IP's Feel about Self-Help group [F (1, 211) = 2.219, p = .055 η^2=.027]. The means for the three groups were: self-help (M= 5.6, SD =.0.9, N = 108), "professional treatment" (M =5.5, SD =.8, n = 81) and usual care group (M =5.8, SD= 1.0, N = 26). Using the Tukey test, people in usual care experienced significantly higher IP social support from their network compared to the other two conditions.

Hypothesis IV

There was no statistical significant group difference (professional treatment, usual care, self-help) and asset based community level scores [F (2, 208) .641, p = .528 η^2=.006].

Hypothesis V

Multiple regressions were used to investigate whether IP- - alcohol-drug IP social support network significantly predicted participant's perception of their behavior control. A significant model emerged: F (7,191) = 3.78, p <.001. The model accounted for 8.9 % of the variance (Adjusted R^2 =.089) and demonstrated that the degree of social support provided by the IP- network significantly predicted participants perceptions of behavior control (β = .19, p < .05). Hence, for every 1 SD increase in the participant's behavior control, there was a corresponding .19 point increase in degree of IP-network support asset given.

In addition, important person network support given to the participants in the form of feelings IP's have towards participants being in a self-help settings was statistically significant (β = .22, p < .05).That is for every 1 SD increase in the participant's perceptions of behavior control, there was a corresponding .22 point increase

in IP-network social support in form of emotional assets supplied towards participants' being in recovery self-help condition. Table 3 provides further information for the predictor variables used in the model. The reaction of IP social network to the participant's abstinence from alcohol and drugs, as well as the number of IP frequency of contacts in 6 months, and the IP type of support were all non-significant predictors, but IP network feelings about participants residence in a self-help condition and the Amount of IP social support were significant.

Tale 3

Simple Regression Analysis unstandardized and standardized coefficients examining alcohol-drug specific abstinence social support and perceived control

Variables	B	SEB	β	*t*	*P*
IP-Feel self-help Setting	.39	.16	.22	2.40	.02*
IP-supportive	.24	.09	.19	2.52	.01*
IP-Feel treatment Setting	-.11	.16	-.06	-.68	.50
IP-React not Drinking	.14	.11	.09	1.25	.21
IP-React No Drug	.12	.13	.06	.91	.37
IP-Contact 6 Months	.00	.07	.00	.06	.96
IP-Type of support	.08	.06	.09	1.28	.20

Hypothesis VI

To analyze Hypothesis VI, we explored whether Length of stay (LoS; dependent variable) in the treatment/ recovery setting was positively related to perceived control (PC; independent variable) after controlling for IP abstinence-specific social support (AASS; independent variable).We used a hierarchical (stepwise) multiple regression to examine this hypothesis.

In the first step, length of stay (independent variable) was regressed with the participant's perceived control (dependent variable). A non-significant finding emerged [F (1, 189) = .52, *p* =.47]. The first finding implied that when length of stay as a predictor is entered in the model (R = .052, R^2 = .003), .3% of variance is explained from zero and the model is not significant, meaning that of length of stay was not a meaningful predictor of perceived control.

In the second step, IP alcohol-drug specific social network support factors (independent variable) was entered with perceived control (dependent variable) controlling for length of stay, a significant finding emerged [F (8, 182) = 3.52, p < 001]. In the second step, the model improved when IP alcohol-drug specific social support factors was added as predictors of perceived control. The R change from .003 to .134 and R^2 change from 0.3% to 13.1 % suggest an increase capacity in predicted value, and the model was statistically significant. In general, the model implies that length of stay factor was not contributing a significant amount of the variance in the model that explains participant's perceived control.

The variables IP-Feel about participant's self-help settings was a significant factor (*p* =.02) and the variable degree of IP- network support was also a significant (p=.01). The model explains .3% of the variance (Adjusted R square, R^2= .003) in perceived control of the participants. Table 4 below provides further information about the predictors.

Table 4

Hierarchical Regression Analysis Length of Stay as Predictor of Participants Perceived Control, Controlling for IP-Network social support.

Step 1					
Variables	B	SE B	B	t	*P*
Constant	4.90	.10		38.90	.00
Length of stay	.60	.08	.05	.72	.47
Step 2					
Constant	.85	.97		.87	.39
Length of Stay	.04	.08	.03	.46	.65
IP-Feel Self-help Setting	.41	.16	.24	2.51	.01*
IP- Supportive	.23	.10	.18	2.38	.02*
IP- Feel Treatment Setting	-.09	.17	-.05	- .54	.59
IP React not Drinking	.15	.12	.09	1.28	.20
IP- React no Drug	.11	.13	.06	.88	.38
IP- contacts 6 months	.01	.07	.01	.08	.94
IP-Type of support	.09	.06	.11	1.46	.15

Note R^2 = .003, for step 1, Δ= .096 step 2 ($p<.001$). *$p < .05$

Hypothesis VII

Hypothesis VII predicted that that, Length of stay (IV) would moderate the relationship between IP-Alcohol-drug abstinence-specific social support factors (IP-feel self-help, IP-level support, IP- feel treatment, IP-no drinking, IP-no drug abuse, IP-contacts frequency, IP- type of support) (IV) and perceived control (DP). To investigate the moderating effect of length of stay on the relation between IP-abstinence Social support factors and perceived control, a stepwise hierarchical regression statistical analysis method was utilized.

In step 1, variables IP-Alcohol-drug abstinence-specific social support factors variables (IV) and perceived (DV) were regressed. A significant model emerged, F (7, 179) = 3.76 *p* = .001, implying IP-Alcohol-drug abstinence-specific social support factors accounted for (R = .358, R^2 = .128) 12.8% of variance. In the first step, IP social support from the network factors; IP-Feel Self Help Setting was significant (*p*= .005) and IP-Support Level (*p* =.020), were significant.

In the second step, the study regressed Length of stay and IP alcohol-drug specific social network support factors (IP-feel self-help, IP-level support, IP- feel treatment, IP-no drinking, IP-no drug abuse, IP-contacts frequency, IP- type of support) (IVs) and perceived control (DV), and a significant outcome emerged, F(8, 177) = 3.09, *p* = .002. The finding suggests that when adding Length of stay, the model now accounted for less variance (i.e., R = .369, R^2 =.136, change from .128 to .136) with a decrease on explained variance from 9.4% to 9.2% (Adjusted R = .092). Similarly in this model, factors IP- Feel self-help settings was significant (p =.004), and IP –support level was significant (p = .026). The model explained a smaller .2 % of the variance; the degree of freedom increased by 1 because of adding the factor length of stay and the F ratio decreased by .66, therefore, these factors were not needed in the model.

In step 3 using centered factors and moderating the effect of length of stay (IV), IP- alcohol-drug specific social network support (IVs), and perceived control (DV), a significant model emerged [F (16, 170) =2.019, *p* = .014]. The model accounts for 8.1 % of the variance, which is 1.3% less than first model; the variance in the main effect involved a change of .2.4% of variance explained in perceived control of the participants (R = .400, R^2=.16). However, the interaction term was not statistical significance, Table 5 provides further information for these predictors.

Table 5 *Unstandardized and Standardized Hierarchical Stepwise Regression Length of Stay Moderating Social Support and Perceived Control Relationships*

Variables	B	SE B	β	t	*P*
Step 1					
Constant	.73	.94		.78	.44
IP Feel self-help settings	.36	.13	.21	2.84	.01*
IP-Support level	.24	.10	.18	2.35	.02*
IP-Feel Treatment Setting	-.03	.07	-.04	-.52	.60
IP React not drinking	.15	.12	.10	1.30	.19
IP-React no drug	.12	.13	.06	.90	.37
IP-Contacts 6 Months	.00	.07	.00	.01	.99
IP-Type of support	.08	.06	.10	1.36	.17
Step 2					
Constant	-1.65	2.31		- .71	.48
Length of Stay	.04	.08	.03	.44	.66
IP Feel self-help settings	.37	.13	.21	2.88	.00*
IP-Support level	.23	.10	.17	2.25	.02*
IP-Feel Treatment Setting	-.03	.07	-.04	-.47	.64
IP React not drinking	.62	.43	.39	1.45	.15
IP-React no drug	.15	.14	.08	1.10	.27
IP-Contacts 6 Months	-.01	.07	-.01	-.13	.90
IP-Type of support	.08	.06	.10	1.32	.19
Step 3					
Constant	-2.33	2.39		-.98	.33
Length of stay	.00	.12	.00	.03	.98
IP Feel self-help settings	.49	.14	.28	3.46	.00*
IP-Support level	.23	.11	.17	2.15	.03*
IP-Feel Treatment Setting	-.013	.07	-.02	-.19	.85
IP React not drinking	.64	.44	.40	1.47	.14
IP-React no drug	.11	.15	.06	.75	.45
IP-Contacts 6 Months	-.03	.07	-.03	-.35	.73
IP-Type of support	.09	.06	.10	1.34	.18
IP Feel self-help*LoS	.19	.22	.14	.87	.39
IP-Support level* LoS	-.03	.10	-.03	.29	.78
IP-Feel Treat Setting* LoS	.05	.20	.03	.24	.81
IP React not drink* LoS	-.04	.12	-.03	-.28	.78
IP-React no drug*LoS	.11	.09	.11	1.31	.19
IP-Contacts 6 Months*LoS	-.00	.00	-.04	-.49	.63
IP-Type of support* LoS	.01	.06	.02	.20	.84

Note R^2 = .13 for step 1; ΔR^2 =.094 for second step 2; ΔR^2 = .081 for step three ($p < .05$*)

CHAPTER IV

DISCUSSION

This study examined assets available in the treatment and recovery processes for SA problems in Kenya. The presence of individual level, social support level and large community assets was investigated and compared across different groups, including those undergoing treatment/recovery in professionally managed treatment, peer managed self-help, or usual care recovery. The assets measured included individual psychological dispositions for treatment, important person networks (offering social support), and larger community resources that provide pathways to treatment, recovery and life-long sobriety.

The Kenyan population in SA programs have unique circumstances compared to those in the West. Being located in an African context provides a different cultural setting and experience. There is a lot of stigma around mental disorders, including SA, in Africa. There is also a contextual, historical, and structural neglect of mental health and SA care, creating greater barriers to resources. Culture even impacts the perception of the presence of assets and of health seeking behaviors.

The stigmatization process builds around assumptions that certain characteristics of a person or group makes those people different, and even contrary from the social mainstream norm. Local descriptions of people mental health and SA disorders still use derogatory language such as “mad” and “crazy”. Clients are often seen as having “lost it” because they have broken taboos and social norms that are seen as morally problematic and dangerous. Kenya’s only national mental health referral hospital is Mathari hospital, “Mathari” meaning place for those that are abnormal—physically, socially, psychological, or morally. These largely shared social attributions shape the bases for exclusion, compromising many, and creating multiple barriers from the family and larger community. Due to these barriers among Kenyan communities, there continues to be stigma around mental disorders, including substance abuse (Kinoti, Jason, & Harper, 2011).

Stigma takes both covert and overt forms. In its covert form, inaccurate assumptions drive subtle behaviors (e.g., discriminatory comments) towards people with SA problems. Stigmatizing stereotypes include the idea that people with SA problems are violent, weak in character, and incapable of making decisions. Often isolating behaviors work unconsciously, as society overlooks the need for assets and resources for treatment and recovery support. Less economically developed countries often lack effective treatment and recovery

programs, resources, and research to inform effective pathways to prevention, treatment, and recovery (Walt, Kinoti, & Jason, 2012). In these countries, often the mental health domain is left out of primary health care planning, because physical illnesses such as HIV/ AIDS, malaria, and malnutrition are seen as such immediate health concerns (Kinoti, & Jason, 2013).

Overtly, stigmatization is evident in public reactions to people with substance abuse. Those with a stigmatizing orientation see those with SA problems as a group responsible for their condition and unworthy of help. Most pressing, stigmatization also leads to avoidance. Families too often avoid family members with SA problems. In Kenya, they may also use force, having them locked up in chains and enclosures. For those addicted, at the root is fear of being treated differently or stigmatized by the rest of society due to their ill health.

Segregation of the stigmatized is the most common solution. This systemic discrimination further impacts mental health care, so that both the public perception of the institutions and internal management are modeled on controlling and keeping those with SA problems at a distance from the family and the rest of the community. Cohesive approaches are often used in dealing with the SA population forced into treatment and denied a chance of expressing what they feel like and how they would go about it. Hence, there is, among those with SA difficulties, a diminished sense of self-mastery and self–efficacy. Health care and well-being oriented interventions are replaced with punitive legal interventions, and health conditions are criminalized and dealt with through punitive justice systems. The general environment of stigmatization in the African context is compounded by traditional beliefs about mental health, which in turn creates a larger set of barriers for people with SA problems. Therefore, the intersection of cultural stereotypes and impacts it has on SA institutional management approaches. Stereotypes about SA difficulties creates a vicious cycle of perceived inability and disregard for the SA population's health and quality of life. This disempowers people with SA problems, reducing their individual capacity and willingness to openly seek help, further isolating and segregating them. It also denies them the recovery social support from family, friends, and the larger community.

Another component of a stigmatized population is a tendency of power dependence. There is almost always a power-stigma linkage. Historically, social, economic and political power has been overlooked, even taken for granted as non-problematic when it comes to dealing with the plight of poor marginalized and disfranchised individuals. The same relationship dynamics of social, economic and political power is present with people dealing with SA problems. The prevailing perspective is one of internal attributions, faulting the inabilities and flawed moral character of individuals rather than socio-economic power differences. These

approaches create a psychological dichotomy between people with SA problems as “abnormal” and those without as “Normal”. The labeling and stereotyping that occur where people are labeled as of limited ability leads people with SA issues to see themselves and define themselves cognitively as lacking of control over any assets that could otherwise help. Self-disbelief and distrust reign when self-efficacy is the greatest hope for recovery. Gradually, nonetheless, the person’s self-efficacy breaks down through self-doubt, leading individuals to become incapable of initiating or undertaking the necessary health-related steps that have the potential to produce positive impacts in major life-domains, such as health behavior, seeking treatment, believing in self, in self-mastery and taking step towards health care in general.

Treatment and recovery in Kenya, as in most of Africa, is relatively new compared to the western world, where substance abuse and mental health in general is mainstream and well-integrated into basic health care system. Kenya’s oldest rehabilitation center, Asumbi treatment center, started in 1978. Since then the growth in SA healthcare attention has been very slow. The formative nature of treatment and recovery medicine and related settings in Kenya forms complex barriers for treatment and recovery for people with SA problems. A broken health care system that is almost nonexistent for addiction treatment supports the cry from people dealing with SA problems that few assets are available to them. At any formative stage, there are not many success stories from people who have gone through treatment with much success.

These approaches are disempowering. They create mistrust, doubt in larger systems, and feelings of indifference even when meaningful, accessible assets do become available. Amidst challenges, poor services, scarce and expensive services, participants feel hopeless and uncertain of any long-term impact on their treatment/ recovery efforts. Consequently they express an absence of, or indifference to, assets across different settings.

The lack of no differences in individual and community level assets among people in treatment and recovery in Kenya may be explained by replicated use of the self-help 12-step model. The Minnesota AA model adopted from the USA is common in all Kenyan treatment and recovery settings, not having undergone any cultural modifications. In Kenya, the Minnesota AA model is replicated from one setting to the other. Because the model is also mandated weekly it becomes a common experience and this might have influenced the lack of findings of across conditions.

Hypothesis I; I_a-1_c Settings group difference in addiction severity index

The study hypothesized that there would be differences in addiction severity scores based on professional treatment, peer self-help group, or usual care membership. The hypothesis was not supported. The

addiction severity scores has domains of interest that include drug use, alcohol use, medical status, employment problems, legal problems, family problems, and psychiatric status. This study focused on drug and alcohol domains and the participants' self-report of their frequency of use in last 30 days and lifetime. The lack of support for the hypotheses regarding differences in alcohol-drug severity scores may be partly due to the disorganized nature of the entire health care system, mental health substance that is nationally neglected, worse than other domains such as the economy.

In a sense, the magnitude of suffering that general population experience due to other factors such as poverty, low living standards, and high rates of illiteracy can blur the ability to report actual problematic experience of alcoholism and drug use severity as a problem rather it may be maladaptive behavior as an escapism mechanism. Such that even when small health changes occur, participants do not recognize this change.

Moreover, with the stigma attached to alcoholism, the population seeking treatment and recovery still experience no changes even when a little abstinence is achieved. The discriminated and stereotyped condition is judged as the same and probably heightened now that they are in settings associated with negative stigmatized mental and substance abuse illnesses. Participants are likely not to report any changes they have experienced since the general situation is one that involves still being discriminated against, shunned and referred to in derogative discriminating terms and perceptions.

Substance abuse is a complex condition characterized by varying and prolonged intense, often uncontrollable substance craving, coupled with compulsive substance seeking. This substance use persists even in the face of life shattering consequences. Substance abuse affects not only the multiple physiological structures and process such as learning, motivation, memory and inhibited control over behavior, but also substance abuse has far reaching effects in health and social levels of the abuser, family community and larger society. Therefore, until treatment and recovery effects most areas of a person's life, those in recovery are likely to perceive the absence of assets and few small personal level changes towards recovery. It is important for people in recovery to live each day at a time so that the challenge of the diverse components related to SA disorders and the consequences can be appreciated as a long-term process. Consequently, a well-rounded approach to SA treatment and recovery is important. Multiple level interventions include an understanding of recovery as a process, and supply assets in the same multiple levels so that gradually the systems lead from severe alcohol and drug abuse conditions through slow abstinence to a lifelong of sobriety supported by resources at every level. These wide spread assets support individuals to obtain sobriety for a drug-free

lifestyle. This power of assets can lead them to achieve a productive functioning in family, work, and, in general, society itself.

A treatment and recovery facility may be in the Kenyan context if it was developed to meet the challenges of expected changes of the recovering community overtime. The value of available assets in the individual, community and large society are best made available in the context of a lifelong process which is the nature of recovery from addiction. Hence, assets for recovery achieve the best outcomes when available in a long-term, seamless manner. In turn, people with substance abuse problems gradually learn the long-term investment of time into their recovery as an asset. Becoming aware of the ultimate goal of sustained abstinence and recovery as a new lifestyle, health positive outcomes for people with SA problems can only be achieved if individuals engage in treatment and recovery from the start, and remain in a long-term recovery process. This way, individuals, communities, and the larger social environment must have resources for this population available; accessible and trusted to enable the actual utilization and support in the recovery. According to Winnicott (1974), the best circumstance to achieve long-term recovery is in a "holding environment", a setting that allows access to multiple resources such as positive peer interaction, mutual support, and indirect confrontation of risk behaviors that reduce the chances of maintaining sobriety as a lifelong commitment.

Hypothesis II Treatment/ Recovery group difference in Individual Assets

It was hypothesized that there would be differences in participants' individual asset scores depending on professional treatment, peer self-health and usual care group membership. This hypothesis was also not supported; participants did not have any differences in the individual intentional scores.

The sustainability of SA recovery are greatly dependent on an individual's intention to remain sober. Spiritual components such as self-efficacy, self-mastery, and hope provide individual-based, internal movements towards active participation in self-change. Therefore, as an agent for self-change, one begins to discover and choose to follow through on pathways that point to healthier destinations. When one is equipped with these individual internal assets, which can improve a person's self-value, one begins to reconcile past experiences, develop self-appreciation, and rebuild self-esteem. Internal assets such as self-liking, self-competency, and self-confidence help the person in recovery make decisions to actively take action toward a better self. Individuals with these internal spiritual assets can more actively self-regulate as opposed to letting cravings of alcohol, drugs and circumstances control them. The person begins to utilize cognitive decision assets to strengthen and maintain impulse control and self-discipline.

The challenges in the area of an individual's cognitive self-evolution, among a Kenyan SA sample, arise from the fact that the prevailing environment is a predominantly collectivistic culture. Individual-level cognitive decisions, while these may need group support, often demand a lot of personal conviction and resources to make and follow through. Collectivistic cultures encourage expectations and behaviors that are regulated. Most African communities have predominately collectivistic cultures. Hence, individual-based processes such as self-concept, self-esteem, self-mastery and decision-making are compounded by community expectation, which take precedence to the individual. Individual choices are constrained by interwoven dependence on the group judgment as opposed to individual competency and decisions. In these circumstances, an individual is constrained to act upon a behavior that is socially acceptable and fits into the community's expectations.

In regards to people with SA problems and who are undergoing treatment and recovery, the tension is doing what is culturally acceptable and what brings about recovery. When the treatment and recovery is at early stages, decision-making is a difficult process for the unstable patient. Furthermore, Kenya's treatment and recovery programs are all modeled on Western programs and are in a formative stage. The entry of treatment and recovery medicine into the new cultural perspectives of the larger mental health issues equally makes it difficult for patients. People with SA, like those who have other mental health illnesses, experience additional psychological difficulties. There is a tension between what is collectively acceptable and the value of emerging addiction treatment and recovery programs that demand both individual action and access to group support for a beneficial self-agency. Local cultural perspectives on mental health and substance abuse are based on moral assumptions, with ideas such as substance abuse results from an individual's moral problem. People with SA problems will tend to hide their condition from others and are less likely to disclose any information about their problems even to health care institutions and professionals.

Politically, when SA problems are understood as other physical diseases, more positive resources tend to be supplied in in the form of health care supports. People in need of treatment and recovery feel comfortable visiting treatment centers and reporting their problems so that they may achieve recovery and sobriety. The immediate cultural perspectives play a major role in determining mental health and SA outcomes. Where positive understandings of SA issues exist, support network and communities validate the need for care. A

positive perspective is in itself a resource for people with SA problems. Supportive cultural perspectives and practices strengthen the individual's efforts toward recovery by providing positive external perceptions and respectful descriptions of the people with SA problems and their needs. Because the more severe the addiction, the less likely the individual is to have the judgment to use the available resources in a recovery program. Therefore, the health care system must include programs at multiple levels to identify and support people in need of treatment and recovery services. When assets are readily available, patients are more motivated to seek treatment and recovery.

The majority of Kenyans in SA recovery report that they depend on someone else for financial support and everyday needs. Since a person's perceived control is a very important factor in the outcome of treatment, if the person lacks financial means to obtain treatment when needed, the person perceives a lack of control of assets, and is less likely to act to improve his health. Because many of Kenya's sample report external support, they depend on another person's choice, and therefore are not in control of all the assets of treatment. Furthermore, relying on someone else reduces the person's self-esteem and confidence that the process of treatment and recovery can be sustained once started. Because of this uncertainty, people in recovery do not imagine that they can continue to support themselves throughout their treatment and recovery.

Similarly, individual-level internal psychological resources provide a crucial ego function. They provide a baseline for seeking help and utilization of available external resources. These individual assets are gradually strengthened over time, when programs are available and offer opportunities for recovery and treatment. An idiosyncratic decision-making process based on one's beliefs and assessments of life experiences is important to treatment and recovery. These decisions are enhanced by continuous efforts to fulfill abstinent goals, and through these goals, form crucial support for recovery in the pathways chosen. Irrespective of the chosen paths, getting clean from SA in any treatment and recovery settings, an individual always needs cognitive restructuring of thoughts. This restructuring of one's thoughts is a process, which is core to influencing to the rest of life-long process in sobriety.

Human behavior is known not to be very amenable to change. Therefore, to make behavioral changes demands adjusting to maladaptive habits, which demands a new belief system. The alteration of thinking promotes the initiation, implementation and maintenance of recovery. It is important for one at the cognitive level, to have a perception of substance abuse as a learned behavior. This understanding helps take a cognitive evaluation, and conclude that the behavior can also be unlearned. A commonly utilized process of adapting

one's belief system is well utilized in the AA. Here the SA problem is understood as a disease. This disease perspective help in reducing blame, stigmatization, fear and increases positive health seeking behavior.

Another psychological asset important at the level of individual agency for health outcomes is an internal locus control. According to Burman's (2000, 2003) study, will-power, just like the AA view, (absence of or lack of will power) is a major factor in relapse cases. It is cognitively an important asset in the recovery process because it empowers and propels a weak will power into decision-making and action. The AA program utilizes the model of higher power and powerlessness as a cognitive disposition, instrumental processes in recovery. This replacement and support model is advanced through reliance on 12-step principles in the group support context. In addition to these perceptions, in its self-definition, AA tradition advocates for the ability to designate alcoholic self-identity.

Moreover, the self-control capacity is an important cognitive psychological building bloc in SA treatment recovery. Although AA's structure of community support system may be low in individual capacity control for sobriety goals, AA provides social support for individual level assets to develop. The presence of social support provides a different approach to locus of control. Although the adherence to AA group norms offers an external locus of control, the model's basic core asset; social support, indirectly enhances individual cognitive assets and increasing the growth of individual's internal locus of control. These processes do not have direct cause effects, but synergic relationships help in recovery. This complexity of interaction, points to fact that individual resources are part of a larger behavioral and cognitive resources necessary in treatment and recovery for SA Patients. Nock (2007) points out that multiple mechanisms are precursor to behavior change at multiple levels. Consequently, a behavioral change can be explained from social, psychological, behavioral and even neurobiological processes. The mechanism of behavior is also likely to change over time. In this case the mechanism through which someone with addiction gains entry or starts treatment and recovery, may be different behavior mechanism to the mechanism that sustains the same person in a long-term recovery and sobriety lifestyle.

Utilization of such non-professional community based fellowship programs such as Alcoholic Anonymous (AA) (AA 1953) enhances individual resources for recovery. The AA and modified 12-step programs provide resources through networks of informal gatherings, which are convened at different venues such as churches, rented places and hospitals in different cultural settings. Over the years, AA practices have been formalized in a manual. The manual has led to the model developed by McElrath (1997) and commonly known as "Twelve Step Facilitation" (TSF), simply the "The 12-Step". With the codification of the AA

practices, a normative manual is instituted and becomes source for professionals interventions designed to facilitate engagement in AA. The AA mode is culturally adaptive. Kenyan treatment and recovery settings have adapted the AA Minnesota version, mandated and replicated internally in most of the programs treatment schedule.

The usefulness of the intervention is based on an individual's attendance and participation. The active participation is dependent on an individuals' internal psychological processes, which in turn improve the more an individual utilizes the program. The changes that occur through the 12-steps occur through simple and ordinary mechanisms over time. There is an incremental change, on processes maintained through growing motivation, self-efficacy and coping skills. There are also processes specific to AA, such as being active member practicing 12-step and taking part in activities that enhance alcohol or drug specific support social networks.

Alcoholism and substance abuse have debilitating effects on the individual, family, community and the larger society. It is important that substance abuse and alcoholism treatment and recovery programs are diversified to achieve positive outcomes. These goals can be achieved when programs include various idiosyncratic pathways and cognitive influences strategies that impacts recovery. A mixture of continued assets that enhance cognitive self-evaluation processes and help clarify both a persons' process and goals of decision making are important to support an open mindedness of learning. For example, having a role model who helps in making honest and supportive external and internal self-evaluation. When a person with SA problems receiving feedback, has an asset in persona and feedback received which both are core asset in conscious cognitive self-restructuring. Consequently, both short-term and long-term recovery goals are actionable oriented and propelled by an intention and actual conformity.

Burman's (2000) study revealed that an individual in recovery takes a central role that impacts recovery. The entire sobriety process is summoned by individual's cognitive process upon which other processes are dependent. Many pathways to recovery are heavily dependent on self-change (Prochaska & DiClemente, 1982). Each of the numerous stages of change resides in the person's intention toward self-change. Consequently, self-change holds a core place distinctive to other pathways of obtaining and remaining in treatment and recovery. The self-change phenomenon is, as experienced in AA programs, a support system instructive and linked to other pathways of recovery.

Other major cognitive factors that play core role in the effective self-change phenomena are the influence of cognitions on the change process. Burman (1997) argues that assets in the form of cognitive

process such as reflection, self-introspection, reasoning, assessing, and critical thinking become critical connecting processes in the treatment and recovery process. The cognitive resources help evaluate reasons for substance abuse, drinking and the consequences of the behavior. In turn cognitive evaluation of consequence of SA creates motivation and determination to take action. This process underway with individually conceived strategies, one puts effort in engaging in healthy activities, such as seeking for a treatment facility, a sponsor, and any recovery related assets. The fact of the effort to carry the process and sustain recovery and finally own the consequences of abstinence and sobriety follow and are internalized.

Self –change is facilitated through internally elicited assets, which are distinctive features of being generated and maintained by an individual's belief in the ability to abstain. This belief system may be learned from past experiences of quitting substance abuse behavior. The learning process is in interaction with social assets such as social networks that supply deeper learning and role modeling. Sponsors who are in recovery are one example. It is important to understand that, because one decides to become healthy and sober from any substance abuse, the triggers, cravings and temptations are risks for which one uses internal assets to overcome.

In its short history, Kenya's treatment and recovery system are lacking community support systems that impact an individual's cognitive restructuring. Hence Kenya's situation of SA and the need for effective, efficient and sustainable treatment and recovery programs, requires a deliberately planned strategy to develop the supportive systems. However, as stand now the conditions are that these assets are unknown, with no research in this domain. Self-efficacy stands at the core of self-change: the self-conscious choice and the ability to generate enough internal efforts to begin and maintain recovery.

Bandura (1997) explains that self-efficacy is a necessary resource towards relapse prevention. The cognitive process, comprehensively and over time, achieves a consciousness and recognition of the processes and the inherent demands of the experience of addiction, treatment and recovery. Self-efficacy plays a role in the desired change and personal willpower. These two desired change and will power are utilized in order to engage in the process and calculate cost-benefits of the new behavior are necessary at least as a process so be able to bring about the change. For the change to occur an individual's self-efficacy must increase. Self-efficacy occurs when an individual internalizes important strategies that anticipate future events and develop strengths to withstand them. There is also contemplating the implementation, sustaining abstinence and readiness for consequences of the choice to engage in new behavior. The processes are mediated through many pathways, self-change, cognitive–oriented treatment, social and community level pathways are mitigating factors. Because SA Kenyan's lack such programs and peer run self-help programs such as Oxford House, these circumstances

reduce the chance for changes that can better bring Kenyans toward recovery-building, self-mastery, and the assets necessary for their recovery.

Majer, Jason, Ferrari, Olson, and North (2003) investigation indicated that three personal resources of self-mastery, optimism, and abstinence self-efficacy bring about coping benefits for recovering substance abusers and are instrumental in maintaining recovery. The study explains that oxford house residents develop an optimism which is associated with their abstinence self-efficacy. In particular, that people in oxford house (which is a peer run recovery setting) develop and utilize multiple cognitive and behavioral coping strategies in combating stressors that would otherwise act as obstacles to recovery. Self-mastery comprise of personal resources, which explains the extent to which one has a sense of control over outcomes in one's life. Furthermore, Pearlin and Schooler (1978) explain that the precedence of self-mastery provides bases to the extent that people see themselves as being in control of the forces that importantly affect their lives.

In addition, Marshall and Lang (1990) identified self-mastery as perceived personal control or simply self-control, and thus that perceived control over situational outcomes characterizes self- mastery. Therefore self-control is important to achieving the goals that one has identified, desires or considers. There are complementary resources in the confidence of one's ability to effectively engage in situations toward a desired goal such as abstinence from SA. Self-mastery is an individual level resource, whose characteristic is important for abstinence self-efficacy. These individual level processes are dependent on confidence gained from support systems and settings. This means , for example in Kenya, people with SA and lacking support, it remains difficult starting any meaningful recovery process and being confident enough to point out any occurring changes.

A person's ability and willingness to obtain and use health information is a core condition for effective participation in decision making about progressive health actions and service utilization. World Health Organization explains that the primary role of health education is improving skills at the disposal of an individual or community. Therefore, health information has to be available to any entity, this is core in health, so that obtaining health information tone can make informed decisions in relation to health choices. In turn this competency often referred to as "health literacy" increase cognitive and social skills, which determine motivation and the ability of an individual or community to gain access to, understanding and make use of information in ways that promote and maintain health. However, in an environment where there is little health information, health literacy is lacking and people find it difficult to acquire assets in any form of health supporting information.

Godlaski, Leukefeld, and Cloud (1997) points out that that there are individuals who recover without any contact with formal treatment settings or taking part in 12-step groups. Those who consciously seek treatment or any sort of help due to substance abuse related complications may benefit from any interventions because they have an inner disposition for recovery. Certainly close involvement in 12-step groups is generally by choice. Although there are related rates of relapse both in general populations as well as severely affected population in substance abuse treatment, presence of intervention provides tested pathways to recovery as opposed to non-interventional pathway to recovery. In both cases, intervention and recovery without traditional interventional pathway, self-mastery plays core role. According to Theory of Planned Behavior (TPB), applied to substance abuse studies, points out that a given behavior can be predicted from an individual's intentions to engage in that behavior. These intentions are predicted by the person's attitude, subjective norms and perceived behavior control. Like every other population with SA difficulties, there are Kenyans in recovery who haven't come into contacts with any treatment and recovery programs, yet start recovery on their own and utilize available assets to remain sober. There is something about choice and naturally available assets that can support a spontaneous recovery.

Hypothesis III Group difference in social support network assets

The study hypothesized that participant's type of setting while receive treatment or recovery would predict differences in their social support assets. The Hypothesis was marginally confirmed, with those in Usual Care receiving more support from their network. The network had a higher favorable score in feelings for the participant's presence in Usual Care compared to Professional Treatment and peer Self- Help run recovery settings. Usual Care means that the person in recovery is recovering from substance addiction while living with family.

Culturally stereotyped groups suffer isolation which affects the group's network reaction to their relationship to the stereotyped group. Association is reduced and privatized, due to fears of being identified with stigmatized group, who intern gradually internalize stereotypes as an identity. Kenya's cultural perceptions of mental health in general and substance abuse health issues, is that the conditions arise due to mostly moral choices internal to the individual addict character. This stereotype also include hidden undertones of non-medical bases such as; curse, bewitched, and assumptions that one must have gone against social norms. In a context where substance abuse and alcoholism problems are moralized as evil and the result of an individual's bad behavior choices rather than unhealthy external environmental conditions; discrimination, isolation, and lack of social support for recovery is maximized. Potential social relations are lost and members of society are

less likely to associate with people suffering alcoholism and substance abuse. People who are family or would otherwise support people with substance abuse problems would rather prefer them stay in the privacy of the homes without public access due to fear of shame that comes with public knowing family member and friends are abusing drugs or alcoholic drinks. Hence, people in Usual Care recovery setting are likely to experience social support network's positive support compared to those in professional treatment and self-help settings which are more public. Keeping addictive family members at home, usual care, hidden from the public provides protection from family stigmatization. The country's alcoholism and drug treatment also experiences a weakness having few easily accessed, cheap, and continuous AA supportive programs. This gap occasions isolation of people with SA problems and it is bound to continue. The few AA meetings are found in the city such as Nairobi, hence inaccessible to rural the inner city and rural populations. Although there are mandatory AA meetings in most of treatment settings, the fact that those in these settings pay for their presence in the settings, creates perceptions of as paid for in the treatment programs. This reduces the likelihood of well spread knowledge of alcoholism as a disease and that people with SA are in need of support like every other sick person. In addition without a broad presence, AA is stigmatized just like rest of programs that provide service to the stigmatized mental health and substance abuse.

According to Lawson, Peterson and Lawson (1983), continuous attendance of AA programs provide pathways that enable people in substance abuse addiction recovery for mutual sharing among members, and this mutual sharing provides information that carries solutions alcohol drug related problems which individuals utilize to continue on sobriety lifestyle. This information also helps break down guilt often suffered by people with alcohol and drug problems, learning that others, specifically members do share in such wrongful actions and have resolved them, slowly gives permission to start self-forgiveness and gradually extend same to others. In addition, AA and substance specific adopted 12-steps principles maintain regular meetings.

The frequent and regular engagement in AA meetings helps members start to positively structure their time. Of the many factors related to drug and alcohol risk behavior is idle and unmanaged time. With 12 principles that structure individuals life and perspectives on multiple levels help one to start to build useful time and spend it with recovery minded friends and activities. Additionally, AA and 12-step based programs do not ask for a fee to be a member or attend meetings. There are also open and closed (SA only) meetings and this makes the AA program an asset to all people. Often, cost, especially among working poor is prohibitive to access more formal treatments for recovery. This prohibitive cost is an important issue in Kenya, whose majority of general population is economically a working poor class, which cannot access a growing treatment

system built on a profit making model. Fee free programs would provide great access to treatment and recovery programs.

Other inbuilt assets available through AA and 12-step programs are multiple goals that cover emotional, behavioral, and spiritual life status for people in recovery, as means and ways to achieve main goal, maintain sobriety and remain abstinence. These mechanisms are associated with developing substance abuse involvement in cognitive, emotional, physiological, and behavioral processes which are important in starting treatment and remaining sober in the recovery lifestyle. Carver and Scheier (1981, 1982) explains that control which draws upon perceptional control form a feedback loop especially from peers as well as sponsors who supply cognitive assets. Consequently, this provides a model for behavior change coupled with self-regulation. Once an individual utilizes these cognitive assets, sets goals which serves as reference value for a control system of comparison with the present situation, monitors rates of behavior changes to continuously balance self, and makes progress, internalizing goals into values that represent self-relevant and highly important "be" value goals (Kanfer, 1977; Kanfer & Schefft, 1988).

Economically, high support for UC by network fits the poor economic condition families and social networks live in. compared to professional treatment centers as well as self-run settings that demands extra financial commitment, UC is often the least economically demanding. The person with SA problems in UC won't be in need of any extra expense outside normal family expenses for daily needs even in non-addicted members. Therefore, social network is likely to be seen to support people with SA problems when at home for simple fact it is not financial and extra burden to family of extended friends.

Usual Care also involves personal emotional attachments. Close relatives and family members are better psychologically and emotionally with their family members at home. The uncertainty of family members and social group member's absence from meditate accessible condition is likely to increase social networks support directed towards those in usual care than those away in treatment and peer run self-help settings

This Hypothesis helps point out assets gap in Kenyans substance abuse and alcoholism treatment and recovery settings. While the individual commitment to treatment and recovery is one core personal goal to achieve success and maintaining sober lifestyle, without external support good intention can remain just as that and over time relapse is almost inevitable. To enhance or even sometimes to initiate an individual's resolve and resource towards treatment recovery may require social support resources. The principal concern in social networks resources are the interwoven relationships of the involved persons. Wellman (1988) explains that social relationships have interdependent relationships, flowing in multiple directions, and that these

relationships linkages provides channels or flow multiple resources in form of materials, social psychological, informational assets, between the actors in the relationship. With the flow and mutual exchange, modeled around the individual, social networks and large structural environment provide opportunities for or constraints on an individual's behavior. When social networks conceptualize internal and external structures as lasting patterns of relationships, they increase likelihood of confidence to take action.

According to Rook, Thuras, and Lewis (1990), social networks resources are important assets that come from family, friends, work, religion, and other aspects that serve as an individual's behavior regulators. These resources motivate individuals to enlarge and grow in responsible behavior as they continue to learn and to refrain from substance misuse and related risk behavior. The assets in the form of social networks have functional values, that through them an individual can be able to direct self-behavior towards goals, pursuits, and monitoring that is appropriate to treatment recovery and a sobriety lifestyle. In the absence of these social support assets or if there are weak links, an individual is less likely to engage in conventional standards, and consequently likely to engage in risky behavior (e.g., alcohol abuse and substance abuse). With strong networks, internal monitoring and behavior shaping occur. With network shared values, expectations can normalize expected behavior, and also provide attainable goals and relevant directions to maintain oneself on recovery path.

With fewer social networks that strengthen relations and supports sobriety, local SA Kenyans experience a gap in resources that are needed to improve recovery from substance abuse. Social network assets, need to be created and developed for Kenya's in recovery. Social network assets provide mutual learning processes, which are linked to Bandura's (1967) concept of self-efficacy and Maisto, Carey and Bradizza's (1990) social learning processes. These two approaches explain how individual health behaviors' due to the development of self-control in relations to risk behavior are related to conditions such as substance abuse. These risk behaviors develop and are reinforced through specific attitudes and behavior of an individual's social network members who are role models. Within social networks, modeling effects begin with simple observations and imitation. For example, substance abuse recovery behaviors are learned via social reinforcement and expectations of positive consequences from non-substance abuse use, and can culminate in sobriety and recovery lifestyle. It is safe to conclude from a social learning theory approach, substance abuse is a function of norms and expectations from family and friends who engage in and model addiction behaviors. So a sober lifestyle can also be developed from a social network if composed of individuals who embrace abstinence. A network of

non-users who reinforce negative expectations about the effects of substance abuse and provide models of effective sober living may enhance and maintain a recovery lifestyle.

The segment of the Kenyan population lacking in social network support can also benefit from other forms of assets. Assets that include learning from peers and involvement in protective activities that provide alternative activities to substance abuse risky behaviors. These reward pathways play a protective role to individuals exposed to substance abuse and risky behaviors. Bickel and Vichinich's (2000) study explains behavioral economics and behavioral choices effectively provide assets in the form of activities, such as education, work, religious and social recreational pursuits. In similar interactions, social networks exchange supportive and protective assets so that involvement in creative activities reduces the likelihood of risky behaviors.

Moreover, peer and professional support vary by different recovery pathways in modifying behavior. According to Nealon-Woods, Ferrari, and Jason (1995), Oxford house residents show perspectives there are of close resemblance to behavioral self-control tactics. Whenever cognitive assets are used and there is a clear definition of substance abuse phenomena, the assets of decision making is determined by evaluation processes. This evaluation process guides actions taken towards the goals and maintenance efforts to prevent relapses. There is mutual enhancement of social network assets. In turn individual assets are utilized, so that an individual who obtains help from available resources needs to develop self-internal, cognitive resources. Goldstein (1995) pointed out that supportive relations enhance capacity for maturity, which occurs in any sustained relations with other human beings. The individual gradually goes through conscious self-evaluation, which awakens self-functions of reality testing, judgment, thought processes, stimulus barriers, regulation and control of any drives and impulses.

Moreover, social networks provide social support for abstinence and are related to alcohol treatment (Zywiak, Neighbors, Martin, Johnson, & Rohsenow, 2009). In order for such networks to lead to and maintain treatment recovery and a sober life, one needs to have frequent daily contact with supportive network. The social network is also a source of general and specific support from the most important people in the network and that this support is significant. There are, therefore, three core health components in relation to one's network: 1) that the network is not tolerant to substance involvement, and provides general and specific support to substance abstinence. 2) The size of the daily social network predicts reductions in drinking, drug abuse and less problem severity over time. 3) Social network is also core in support for an individual's treatment recovery

and sobriety lifestyle. Among these three factors measuring general support, Groh, Jason, Ferrari, and Halpert (2011) revealed that drinking behaviors of the network members best predicted alcohol use.

The application of these findings adapted to Kenya is that the utility of social networks in treatment and recovery would be improved if social networks were developed for those who are nondrinkers and or abstinence themselves. However, the present situation experienced by most people in recovery is uncertainty as to what happens when they leave treatment settings. The fears of uncertainty are based on possibly returning to networks that still drink or abuse drugs, and to families that brew local alcoholic drinks. Under these conditions, recovery for newly treated individuals becomes less unattainable and increases chances of relapse. The situation points to a gap that needs to be filled through building abstinent social networks. With incremental growth of abstinence social networks, there is a progressive growth of assets in the form of people whose behavior and state of abstinence enhances its members to remain sober and abstinent. Two studies by Groh et al. (2011) and Zywiak et al. (2009) provide important evidence to inform the nascent treatment and recovery systems and settings in Kenya.

An additional value to social networks is that of multiple dimensions that impact members of social networks. A general social support network promotes the wellbeing of its members, whereas, a specific social support network is linked to specific issue, such as alcohol and drug abuse. The multiple dimensionality of social support networks varies both in form of support and outcomes triggered. The networks also have a sources component, such as family and friends (Groh, Jason, Davis, Olson, & Ferrari, 2007). Treatment and recovery systems in formative stages can develop these dimensions in the initial stages so that the essential role of social network structures and sources are emphasized from start. Incorporation of both specific and general elements of social networks in improving recovery and maintenance of sobriety forms a basic strategy in treatment and recovery settings development. Consequently, it is necessary to develop conscious pathways that provide specific areas to locate social support sources and forms as means to enlarge asset base for people seeking treatment and recovery. Litt, Kadden, Kabela-Cormer, and Petry (2009) offer a means of entry into the community as a pathway to changing of recovery capital in general. The same pathway provides a means to advance a supportive network from a predominately substance abusing to a non-drinking network that supports sobriety.

Further, Litt et al. (2009) proposed a simultaneous accumulation of time as a core resource in recovery. When time is enhanced by supportive sober social networks, length of stay in treatment impacts an individual's self-efficacy and coping. Consequently, availability of networks that support treatment and recovery has an

effect on long-term adaptive strategies in SA abusers' social networks. The investment of time, social relations, in turn, contribute to better drinking outcomes. Therefore, exposure of people with substance abuse problems and alcoholism to forums, such as AA, NA medical addiction rehabilitation facilities, therapeutic communities, and self-help settings, provide conducive setting in which patients start to build networks that are supportive of sobriety and related supporting health behaviors.

In addition, social network's characteristics of being either a drinking or non-drinking members impacts the nature of friendship its members get involved in. The nature of social network member's friendship changes depending on the relationship between the person's treatment and recovery choices and goals, which align with drinkers' and nondrinkers' social networks. This relationship is also influenced by some of the demographic factors, such as age, gender, and history of alcohol use including family member's composition. Often family members are part of the patient's social network. Mohr, Averna, Kenny and Del Boca's (2001) study proposes that at the start of treatment, a person with substance and alcoholism problem needs to develop new social network over time. On average after accumulating 6 months in recovery settings, one should have an increasing number of members and build closer relations with nondrinkers. This change happens both in terms of relationships and the structure of social networks as one progresses through treatment and recovery. The quality of social network friendships is core to its usefulness. In order for the relationship to support none drinking and no drug abuse behaviors, the quality of relationships has to be functioning in a changing structure for more interaction with those who share the same goals.

According to the study's findings, the majority of social support networks for people in recovery and treatment in Kenya had a structure largely dominated by family members (i.e., 25.2% were family, wife, children, whereas 30.5% were parents and siblings, see appendix D). This aligns with participants' report that 67.1% of them were referred to treatment and recovery setting by a family member. The family unity, therefore, needs to be empowered so that it is a good source of social support for people with SA problems. The family as an important unity source of social support network, would be best strengthened to support recovery and treatment. As a source of social network, it is important to build assets of non-alcoholic and no drug abusing members to empower and align their lifestyle with goals of persons in need of recovery as well as those of treatment and recovery systems. Another gap that is contributing to low assets in our Kenyan sample is that family members lack skills that enable them to deal and help people with SA problems and skills that help families alleviate problems encountered due to substance addicted family member. A good intervention that would build capacity in a community would include supporting families of people with substance problem.

These families are units that can become places of prevention and health recovery and support systems, which are empowered and committed to recovery that aligns their goals with the goals of the person in recover.

Hypothesis IV group difference in community level assets

The hypothesis proposed that there would be group differences in participants' experiences of community assets depending on whether they were in professional treatment (PT), peer-self run (SH) or usual care (UC) settings. This hypothesis was not confirmed.

Community level assets are often dependent on multiple institutions and general social economic circumstances of the local community and health care condition of entire the nation. This is because the relationship between neighborhood mechanisms and national policies is determined by resources distribution and allocation, which impacts alcohol or drug treatment and recovery. Social environment influences an individual's well-being. If the local community is in a social disorganized state, individual members of that community are likely to have poor wellbeing and unhealthy outcomes. Kenya is going through social economic and political transition from traditional social cultural systems to more modern social systems. The nation being a small economy and with widespread poverty, it has had a general social disorganization that for years that has maintained a health care system with many resource gaps. According to Walt, Kinoti and Jason's (2013) study, a disorganized society has disorganized social systems, communities and neighborhoods. This state increases feelings of isolation, difficulties in developing positive relations with people, and nonexistence service providers. In such disorganized social conditions, people with addiction problems are likely to experience greater neglect and disconnect with health services and resources beyond and above the general population. This study found no differences in participant's experience of community level assets that would support their recovery and treatment efforts. This finding means there was no differences in the ways people in the three treatment and recovery settings groups experience local larger community's assets as a place and institution for their recovery and treatment.

Disorganized local communities are also precipitators of alcoholism and drug abuse. Community development framework provides an approach that proposes adopting a more positive outlook into one's neighborhood and community. Through a positive lenses, one can identify locally available building blocks in community for a specific population's health changes. The end result is that the more assets identified and owned by the local community, the more likely there are fewer risk behaviors. A community with multiple, accessible, and utilized assets has the means to insulate more of its members from social delinquencies, such as violence, drug abuse, alcohol problems, and relationship conflicts. According to Scales and Leffert's (1999)

research at the Scientific Research Institute, community assets are provided in the form of health neighborhoods, and their settings with their capacities, readiness, and built in problem solving mechanisms. It is important that in the process of developing assets, the framework applies advance internal and external assets. These two types of assets put the community in a better position of strength, and promotes collective and individual healthy living.

In order to build health neighborhoods, communities, and populations, it is best to take a pathway of mapping multiple external resources not only as building blocks, but as a constant means to maintaining wellbeing. A community that has accessible shared support systems that are readily present for the family, neighborhood and community provides support to the members. The presence of these assets are likely to help its members through all experiences and particularly challenging times that predispose people into risky behaviors. Support also is availed in a community through positive communications. Members of communities with assets support individuals, families, and neighborhoods, and people empowered in turn become assets for those with alcoholism and substance abuse. These inherent community connections form multiple support systems to address social problems. Because of trusting systems, people are quick to seek help. Those experiencing problems can comfortably seek advice and counsel from local community members without fear of blame and condemnation. These basic supports received from other non-parent adults of the community are already well founded in Kenya's cultural context of the extended family structure. With this social relationship established in the community, support can be provided to meet SA risky behavior needs, and provide safety mechanism for support of the general and specific needs of those dealing with addictions. These primary relations play a role in maintaining community collective identity and utilizing the social technology of extended family relations that are respected and longed for. This makes it easier to get the larger community to support health enhancing institutions such as recovery settings.

Community support systems are validated by the experiences of caring neighborhoods, caring institutions, such as schools and religious settings. By the fact of being an active participant in a caring neighborhood institutions, members of the family show support for those in need of some help from the locally available settings. The presence of concerned community members give encouragement to those in need of recovery and their family members to become important actors in treatment and recovery institutions. But to be effective and efficient, helpers need proper training, experiences, education and counseling in order to build relationship dynamics that are more constructive and empowering. Inherent in the assets based community, outlook is the empowerment impact. The idea that people abusing substances experience of being valued,

empowers them. When they experience community inclusive appreciation, that despite their condition they are valued. This person's valued resources by local community members who are non-judgmental and positively present is assertive, and challenges of people to better themselves. It includes receiving consistent and constant messages from local community that they are important human beings and not disfranchised on the bases of their SA condition. Having a community that values their members, empowers them and, in turn, allows addicted persons to view themselves differently helps the process of viewing people with a useful positive role in the same community.

In order to clearly appreciate the value a community has for them, it is important to have people with SA problems cognitively separate their addiction conditions and their human values. So that, seeing that the two are not identical, the cognitive separation allows one to see the self as valued always and in every condition and situation, for the fact of being a human being with inalienable core human dignity. Psychologically, this begins the process of looking at the self in relation to health contributions of the local community common good. These valuations trigger self-improvements such as seeking treatment, maintaining recovery and seeking even more skills to become resourceful to the community. Consequently, a mechanism is born between members and the local community, giving rise to interactions that leads to feelings of safety as well as indebtedness to the family, neighborhood, and community institutions.

Unlike populations transitioning from traditional systems to modernized systems, like Kenya, stable communities experience more advanced accessible assets. With stable accessible assets, a community is likely to have better health outcomes. In stable communities, trust develops, which leads to members of the community having a sense of protection. The feelings of protection form another layer of assets for the larger community, neighborhood, and population. When this trusted permanence of assets, which are consistent in supporting the community, members learn from the onset clear rules and consequences of life outside those trusted boundaries. Learned control becomes normalized and these boundaries and expectations create a psychological awareness of the collective responsibility. Self-monitoring provides instructive health rules and consequences emanating from boundaries and expectations shared in the community. These behavioral mechanism are also transferred into the community, neighborhood and local institutions. Consequently, the entire community's institutions function on same plane, with similar rules and consequences. This web of mutual exchange are shared, and cherished in the larger environments of the school, neighborhood, and treatment and recovery settings. These community level assets provide a framework upon which any behavior can be checked and regulated. The boundaries also are a means through and by which members regain or

remain in healthy boundaries and expectations. Improving health outcomes for individuals, calls for community level organized systems that help and support members in forming healthy habits and provide healthy behaviors. Consequently, people who have learned and have internalized healthy lifestyles and boundaries, become community resources as role models to those in need of help. Role models are an important asset to develop. Role models take upon the responsibility of monitoring self and others' behaviors for better health. Specifically, in treatment and recovery from addiction, role models often referred to as sponsors are a core support system. Sponsors help by modeling sober behavior and help monitor newcomers in recovery, using experiences learned through the recovery process. Through sponsor-sponsee relationships, sponsors share skills learned to help people remain sober and those helped form another layer of role models creating a cycle of virtues shared in a social network. This asset combines elements of peer positive influence, which also encourages others to start treatment and remain in recovery.

Community based assets are provided and experienced by community members in various forms and systems. Community assets are evident when there is health neighborhoods, good educational centers, accessible heath facilities, healthy inter and intrapersonal relationships among community members. This network then is passed on and supported through an intergenerational links. Community resources are further made available in places and means for the members to spend time in healthy ways, of which time is an asset in itself. The constructive use of time is a valued addition that is always available. Creative activities in the community enhance not just good use of time, but also add value to the people who take some time for creativity in such things as music, theater, arts, group discussion meetings, sports and religious involvement.

These creative activities especially when done during leisure time, insulate individuals from risk behaviors, such as substance abuse and alcoholism. However, if a community does not have developed forms of assets and forums, such as sports clubs, organizations, it is difficult to find constructive use of time. It is through this framework that community stake holders, which include religious groups, local social groups, public and private institutions, need to develop programs that create accessible opportunities for positive productive activities. This creativity should aim at every element of its diverse members. In transitioning communities such as Kenya, places that provide constructive use of time are yet to develop. While the transition to modern systems renders massive losses of traditional activities that were often done by all community members, a gap occurs, and community members are vulnerable without resources for constructive engagement. This not only predisposes community members into risky behaviors, such as substance abuse, but also make it difficult to recover when one is ready for treatment and recovery.

In addition, community assets are present and expressed in external entities. These external entities are institutions, such as the family, neighborhood, community and other institutions. The healthy availability of these external institutions are core resources where the development of individual community member's internal psychological wellbeing are best annexed, empowered, directed and actualized. Healthy individuals in turn are more engaged in increasing and developing more of the community institutional assets. The individual internal psychological assets are mostly individual cognitive health, and attitudinal in nature. The internal dispositions from a healthy individual in a community add value to the larger community. These internal dispositions include commitment to learning and commitment to getting health information that enhances members' healthy outcomes. In the presence of myriad such external community assets, without individual level motivation, the community is set on a degenerative process. The community experiences no value added but a degradation process, a loss of resources.

When members of a community are motivated for achievements, the overall collecting wellbeing develops. The motivation in turn makes one engaged in searching for what opportunities are available and creating more for others. This is especially evident in regards to people with substance abuse and alcohol problems. When someone with SA problems is motivated, they are likely to start on a path of seeking and engaging in health behaviors. One is more likely to search for places that provide programs intended for treatment and recovery, or seek help from people with similar experiences and attend such groups as AA, and NA. In addition, motivation leads to commitment to a course, which in turn impacts a person's value for the activities they have to do out of commitment. Commitment is also important for the maintenance of what one starts. When a person if committed, one is more likely to bond with institutions that are offering treatment and recovery services, and more likely to adhere to norms of institutions and systems. It is this element of commitment that leads one to continuously seek additional information to learn more about the community conditions, such as substance abuse, alcoholism and recovery.

An individual's commitment efforts to learning increase the value for health seeking behavior. A positive value, as a psychological asset, makes a person concerned and care about oneself and other people. The psychological asset motivation and commitment provides a basis upon which one is disposed to helping a person extend help to others. In SA treatment and recovery, a person with positive value becomes a person who is accessible and take roles of advising others in recovery by becoming a sponsor or a lead manager in treatment and recovery settings. Positive value advances a person's values and makes one an advocate for people with SA in the larger community as opposed to being a victim of the condition. The concern for others and caring

increases one's concern for such issues and approaches them from a social justice, equality, equity point of view.

Therefore, developing positive values triggers additive value in that one grows on a path of seeking higher values and promoting equality and reducing the social ills that take away this justice from others. The person with positive value becomes a person who understands the presence of drugs and their related pathways that create more crime and unjust treatment of one over others. Community members who have positive value progressively develop into people who act out of integrity. An integrity that is a conviction based on a believe system that promotes health in the community, and takes responsibility at personal level and community level. This integrity is a resource for an integrate approach to health care for the community at large.

With these multiple levels of resources, linkages between external assets and internal dispositions translate into real action plans that are actionable, measureable, and achievable. The presence of people able to make plans, decide and act on them, provides for interpersonal competences in the community. Interpersonal competences form an important bridge that closes the gap between an individual strengths and what is available in the larger society. These interpersonal assets are present in the community in the form of an individual's capacity to manage and utilize emotions, such as empathy, sensitivity, and friendliness in positive impactful way. An individual well-grounded in interpersonal competences can create networks that have a human face, beneficial to the self and groups as well as keeping a distance that respects others. Interpersonal competencies work even better in a community when developing these plans and actions for the purpose of creating healthy community networks in a context that is enriched by cultural context competences. One is culturally competent if one has knowledge of and is comfortable with people of different cultural, racial, social economic backgrounds. It is these assets that enable one to take active roles and gradually empower others in changing social networks. The change of networks for special populations may take pathways from substance abusing and alcohol drinking network to sober and substance free supporting networks. Such healthy conscious networks enables positive specific behaviors, such as non-addictive behavior to thrive and become a cultural norm in a community.

Social ills and challenges always arise in any setting and affects individuals, families and communities. It is therefore, imperative for the community to have at its disposal, assets that help people overcome such challenges. The ability to identify the problems and to decide what measures to take is necessary capacity for the person and community. In situations that experience rampant drug abuse and alcoholism, it is important to have relevant treatment and recovery settings as a means to attain a sober lifestyle. With proper support and

positive messages in a community, it is possible to develop self-control skills, the ability to withstand negative peer pressure, and to manage high risk or trigger situations. These are essential assets for keeping out of SA and possible relapse.

Utilization of all community composite assets should lead to a healthy positive self-identity. Addiction problems are closely linked with loss of identity and self-definition, especially when a person or community is in a crisis of any sort. If these crises are left unattended, individuals gradually fall into risky behaviors such as abuse of substances. Identity is then left at the mercy of or transferred to substances abuse, alcoholism, and related behaviors as way of expressing frustration and relief stress. A healthy community provides avenues for stronger self-identity and when challenges occur, the same community provides pathways for stronger bonds. With stronger bonds, positive identity in even amidst crisis remains a protective element. In order for true healthy self-identity to develop and maintain, the development of personal power to be in control over the things that happen to self is of importance. Life is then lived by an inner self mastery, and no longer defined by multitude, passing waves of substance abuse. With this control, positive self –esteem and positive self-concept develop. A sense of greater purpose is formed and people see themselves as having the potential for greater things in the future and an optimistic outlook.

Hypothesis V a positive relationship between alcohol-drug abstinence specific social support and perceived control.

The study hypothesized that there would be a positive relationship between alcohol–drug abstinence social support and perceived control. This was confirmed. Thus, evidence suggests that increase in social support for people with substance abuse and alcoholism problems improves their perceived control. The regression also found two social factors indicating support; what the people in recovery report of their networks feelings about them being in self-help recovery settings (IP-feel about self-help) and IP-amount of general social support provided. Individual level psychological structural and functional mechanisms are perceived and best utilized in context of social support especially specific to behavioral type of support. The more social support available for a (good or bad) behavior, the more likely the individual member acts on the behavior. For example, having social support networks that have similar goals of sobriety increases the social support which rallies messages contrary to drinking or drugs use. Hence members of the social support network group adapt sober behavior in order to fit and remain in the network.

According to Jason, Davis, and Ferrari's (2007) study, people with SA problems receiving abstinence support, guidance, and information from recovery homes increased their commitment to the goal of long-term

sobriety, which enhances residents' self-efficacy and enables persons recovering from alcohol and other drug addiction to reduce the probability of relapse. General social support provides social networks of friends and this impacts drinking behavior positively. Although Kenyan treatment for addiction is still in formative stages, social support development is evident at the family level in concerns that they show and provide to members with SA problems, However, development of large scale social networks that support people with addiction problems is in need as we see in the social network of the participants is limited to family members. There is need to increase the number of people of the same SA problem and experiences, and larger community positive views of recovery and treatment. By and large, the Kenyan community is mainly a collectivistic relational society, where individual's behavior patterns reflects adherence to community norms. This background is fertile ground to grow social networks that are supportive of health behavior in all risky behavior issues such as substance abuse, HIV, and violence. With the presence of members who represent the community giving positive feedback and support, an individual would easily perceive that as being in control. Social level messages give individual standards of success or failure.

The two IP social network support factors were significant through the regression of IP-feel amount of self-help, and amount of Support reported as received, point to important elements on alcoholism and drug abuse recovery process. The sample in this study reported IP-social support for the fact of being in self-help recovery place. The expression of this type of support forms a factor in participants' perceived control of outcome. The fact that a person in an addiction's network feels better if they are in self-help group is important indicating something about self-help settings and continued support for recovery. Although there is variability in application of the AA self-help groups on multiple issues, there are general characteristics that are common that make self-help programs adaptive and useful in many contexts.

Self-help in general is a process of giving and receiving non-professional, non-clinical assistance to achieve long-term recovery from alcohol and/or other drug related problems. In self-help groups, experiential credentials form the bases for shared recovery support systems. The governance of self-help also varies in span and degree of peer control in which there is some peer-owned, peer-directed, and peer- delivered structure of governance.

Self-help groups are also a free recovery space where there is no fee required to be a member. An individual simply identifies as having a problem of alcoholism/drug use and gains access to the group. This feature that people don't have to pay to attend is attractive to many people who have no resources to access health care for addiction problem and it is, therefore, attractive to the Kenyan population that is low in

resources. The Kenyan context health care is expensive and the neglected mental health and substance abuse care is at very initial stages of growth. This self-help model provides availability, easy membership, and quick endorsement by those whose social network need help.

Additionally, self-help groups enhance bonding and support. Self-help groups are forums with avenues for socialization of people with addiction problems. This component is simply available by groups being formed by peers who have similar experience. These groups are also often available at different places and times. This is convenient to people as they can participate in programs at their convenience.

Moreover, self-help programs provide goal directions both for people with substance abuse, their families, friends, work mates and general social network involved directly and indirectly in recovery. At the meetings, people find a group of people with similar concerns and problems who can provide group support. Group support is important especially in situations with incapacitating problems of long alcoholism and drug abuse problem. With these self-help groups, there is development of networks of non-users. This is an area of importance for all people affected by SA problems either in person, family or social network members.

In addition, self-help groups provide structure and monitoring that is not external to the persons involved. This simple management element is attractive to recovery for networks of people in sobriety, as it has simple organizational structure and rituals. This simple cohesive structure is both comforting and helpful to people in recovery, something that helps people cope with the chaotic, unpredictable, and damaging addiction problem.

Themes of self-help groups also have spiritual elements of release, gratitude, humility, and tolerance as core productive ways for self- improvement. With the experience of excessive guilt, blame, and embarrassment often shared with family member's friends and the social support group, spiritual themes are attractive to refocus the network as person gets better emotionally.

Self-help groups also are known for recovery-oriented systems of care with a view of addiction as a chronic condition that requires management throughout a person's life. Expectations of positive and negative consequence in understanding this situation is important for chronic conditions. This component releases some anxiety both of the social group and the person in recovery of fears and worries of the future that plague those with chronic conditions. Simply the endorsement of self-help settings by one's social network indicates that it is an important factor in recovery for people with alcoholism and substance abuse problems.

After the long experience of disorganization in person's life due to alcoholism and substance abuse, a person may find that a self-help social network supports involvement in protective activities. With involvement in these activities, one can develop coping skills, and the rebuilding of lost relations.

Hypothesis VI predicted a positive relationship of length of stays and perceived control after controlling for abstinence specific social support.

The first step model was non-significant implying that length of stay does not significantly explain any variance to the relationship with perceived control model. The second step indicated that social support specific to alcohol-drug abstinence contributes to perceived control of the participants. In one study, Groh et al. (2007) found that the longer people stay in self-help run recovery settings, the more likely they are to reduce drinking behavior. Length of stay is important for people in substance addiction and predicts less drinking behavior. In addition, interactions between general social support that one gets in recovery settings and length of time stay in setting impacts positively individuals drinking behavior so that after some time individuals develop strong supportive networks that buffer drinking behavior. This implies that social networks and length of stay increases one's perceived control to a level that social networks are not a core value as such, that an individual can be able to operate and make choices for sober living. However, our study was not able to find any significant relationship between social support and length of stay in treatment and recovery settings. In circumstances of great anxiety and uncertainty, where one may end up after a few months in treatment and recovery settings length of stay does not seem to add value to the recovery efforts in people with substance abuse problems. However, despite this findings of no relationship between social support and length of stay, some form of social support is significant. People feel support in terms of the amount of support and social network support they express in terms of feelings towards self-help settings as places for recovery. For every increase of social support in the amount and in the form of what networks feel about places of treatment and recovery of the participants, there is improvement in participant's perceived control. This improves in small ways for participant's ability to take control of their recovery and treatment.

Hypothesis VII Length of stay as a moderator of the Alcohol –drug specific social support and perceived control.

A three step hierarchical (sequential) multiple regression involved entering IP-alcohol drug specific social network support factors (IV) and perceived (DV). A significant model emerged implying that IP-alcohol drug specific Social Network support factors explain some of the variance in model. In this step, the factors IP-Feel Self Help Setting was significant as was the IP-Social Support.

In the second step entering Length of stay and IP alcohol-drug specific social network support factors (IVs) and behavior perceived control (DV) the overall model, was significant. Similarly in this model, factors IP-Feel self-help settings was significant and IP –support level continued to be significant. The addition of length of stay did not significantly improve the Step 1 model.

In step 3, all factors were centered because of the inclusion of an interaction, which increased collinearity statistics of (Tolerance and VIF) using no centered term scores. While an overall significant model emerged, it was inferior to the more parsimonious Step 1 model. This model explained 8.1 % of the variance, which was 1.3% less the first model. The interaction term had no statistical significance. Thus, indicating that length of stay is not a factor as a main effect and not as a moderator.

The two support factors, amount of social support and network feelings towards self-help settings, were significant in the first two models, but were not significant in the third model indicating that the added variables somewhat competed for the same variance, which is consistent with the collinearity concern. The Kenyan substance abusing population is under multiple pressures; the greatest reported fear might be what will occur after a few months of being in treatment and/or in recovery setting. The amount expected often is not enough to keep people for a longer period receiving recovery care. This fact of uncertainty is even complicated by fact of a large gap that exists in families and communities. Returning to similar circumstances and situations that precipitated abuse in first place reduces the changes of remaining sober, no matter the commitment to a sobriety lifestyle.

In addition to the absence of support systems that often develop through AA groups, recovery may also be complicated by the ineffectiveness of short, uncertain lengths of stay that may play a role in developing an individual's psychological assets. While there are AA and 12-step related meetings scheduled in all treatment and recovery settings, this important program is absent outside treatment/recovery settings. The absence of such social support and awareness of the time limited participation when treatment comes to an end creates further psychological pressure. Jason, Davis and Ferrari's (2007) study found that cumulative abstinence is predicted by social support for alcohol (or drug) use, abstinence self-efficacy, and length of residency in OH. Longabaugh, Mattson, Connors, and Cooney (1994) and Longabaugh, Wirtz, Beattie, Noel, and Stout's (1995found that assets provided in the form of supportiveness, particularly abstinent specific support , increased the odds of remaining sober for people with substance abuse problems. In addition, supportive settings are likely to support other psychological and relational mechanism and systems of peers as individuals with similar goals and intentions of abstinent and recovery.

Strengths, Limitations, and future directions

The study has a multiple strengths. The present study examined a population in Kenya undergoing treatment and recovery. Most of the Kenyan studies on substance are on school based and hospital based studies. Our study taps into a new phenomenon of treatment centers that are less than ten years old in the Kenyan mental health-substance abuse system. A second, strength is the utilization an asset model as opposed to the needs model. The needs model, h has a "pathologized process and identity" mental script in population or community of interest, hence introducing further problems of dependency on others as sources of assets. . An asset's model starts to identify inherent community strengths that can be utilized and awakened into people's awareness hence empowering them to better meet gaps of needs and to foster the development of new assets.

Third, the study utilized instruments developed in a Westernized population, and the effort of culturally contextualizing the instruments resulted in scales that exhibit good to excellent alpha reliability. The AAIM scale has good internal consistency, $\alpha = .83$. The greatest increase in alpha would come from deleting item 2, but removal of this item would increase alpha only by .031. The ABCD scale has good internal consistency, $\alpha = .88$. The greatest increase in alpha would come from deleting item 28, but the removal would increase alpha only .01.

Fourth, the strengths based approach is consistent with the indication of the social support assets of people living in usual care after treatment as compared to those in treatment and recovery centers. The value of this serves to highlight social stigmatization of mental health in general, substance abuse, alcoholism and that extends to related treatment and recovery settings. Therefore, this points to directions that need more positive presentations of mental disorder, substance abuse alcoholism as a diseases like any other and that people suffering these conditions need support just like other physical illnesses.

A fifth strength this study relates to social psychological variables as an addition to Kenyan studies that only examine substance abuse rates in institutions such as school and hospitals. Our study looked at relationship between alcohol, drug specific social support and perceived control. This study brings in the fact that people who have addiction problems do have and possess an ability to control not only their behavior around substance abuse, but their own and other peer recovery and sobriety given the proper environment and support. In addition, the study contributes to Kenya and Africa literature on substance abuse, treatment and recovery and the importance of time, length of stay in treatment recovery usual care settings, and processes of treatment and recovery.

The study has a number of limitations. The study was conducted as a cross-sectional self-report design with a convenience sample. In addition, no specific theories of asset in treatment and recovery mechanisms were proposed or tested.

The measures used as asset tools are limited to assets defined by it's the original social and cultural U.S. context, which may reduce its use value in non-Western countries. It is possible that we did not include assets thatare within Kenya, and are more locally defined. Another limitation in the study is that we only looked at treatment programs that are modeled after Western-style interventions. It might have been useful to look at alternative locally-defined treatment and recovery programs and how they differ from Western style interventions. **Research future directions**

The unique and diverse contextual and cultural characteristics of this population provide a solid foundation for more investigations into elements that are uniquely present for recovery.

The results from this study suggest several interesting relationships in Kenya's local experience of people with SA. These associations form a bases for a better understanding of psychosocial relationships that are impacting substance abuse treatment and recovery and sober lifestyle choices. Such psychological process such as perceived control, networks social support patterns and types, length of stay in different treatment settings represent areas needing further studies in more controlled and longitudinal studies.

Furthers study should also look at systemic level social psychological process such as stigmatization and service delivery focusing to different aspects of people with substance abuse disorders and comorbid with other mental illness. These studies should be able to examine all barriers that may be part of difficulty in recovery efforts.

The Hypothesis tested by this study should be studied with more heterogeneous population, as the majority of the participants of this study were males. Such study could help clarify if females are abusing substances or alcohol similar to males, and if they are as likely to be accessing assets for treatment and recovery due to other gender specific barriers to recovery. Also, we need to know whether female barriers are comparable to men abusing substances.

Measurements

In addition, further research of mixed methods would provide a bases for wider and more accurate measurement of what actually is going on in terms of assets present for the people in treatment and recovery settings. A qualitative component would help researchers understand how people with substance abuse and alcohol related problems start recovery. Given that the social networks of people in recovery prefer their family

members at usual care than treatment or peer run settings, such mixed methods may reveals more assets at a social level or identify reasons behind this difference of feelings towards treatment and recovery settings, hence create programs to fill the gaps in understand place of different settings.

Other areas to measure include culturally relevant psychometric instruments.

Models

With consistency in developing proper contextual instrument, models could be developed that allow for more nuanced exploration of assets and other psychological process in treatment and recovery population. Such models could be related to networks such as AA, NA, and family level systems that impact substance abuse and recovery from addiction. Better theoretical models can lead to a more thorough understanding of how individuals, treatment settings, recovery facilities and other avenues that provide or enhance substance abuse recovery assets operate in Africa. There are multiple ways studies can be modeled to investigate assets in recovery populations. At individual level, we can focus on1) self-efficacy and abstinence specific self-efficacy processes at different stages of recovery; 2) the nature of, composition, and dynamics of social networks; 3) self –regulation and coping skills; 4) the role of stigma, and AA group formations and attendance; 5) goal setting, motivations, intentions, and stages of change; 6) and non-abusing characteristics such as educational attainments, employment, rural urban contexts and substance abuse. Model development would be helped by studies that are longitudinal with multiple areas and sites for comparisons, and over time adjustments to understand the phenomena of substance abuse recovery assets.

CHAPTER V. SUMMARY

The research explored in this dissertation investigated the differential experience presence of assets in treatment settings; professional, self-help and usual care. The study had a total of 222 participants from across these three conditions. The experience of assets was operationalized as alcohol severity score as an indicator of level of asset utilization. At the individual participant's experiences, alcohol Anonymous Intentions (individual level assets) measured ones preparedness to engage in recovery related behaviors. In order to understand assets that support people in recovery, we utilized the Important Person Inventory to investigate the types of social assets participants reported. Completing the questionnaire was the main task requested of the participants, a self-report of their experiences and perceptions of what has made them start and maintain sobriety.

The second part of the research was examining psychological relationships that exist among process that are important to recovery; relationship between alcohol-drug specific social support assets and perceived control. In addition, we looked at the relationship between the length one stays in treatment settings and perceived control for any external social support. And the final process we examined was looking at alcohol-drug specific social support and perceived control, and if this relationship was attenuated by length of stay.

The major findings included marginal statistical significance in network social support feelings towards conditions of treatment, with usual care being a preferred place of recover as compared to professional treatment and peer run settings. This implies that social network of the people in recovery have more positive feelings and approval of settings where their family members are friends, especially if it's usual care. This is consistent with social stigma that surrounds the issues of substance abuse and it is extended to where people go for treatment or recover. Also, we found statistical significance with all factors in the models of social support, as perceived control contributes to the model, as do the factors in length of stay and perceived control with social support partialed out. The social support – perceived control relationship does exist, but it is not moderated by length of stay. This mechanism was not confirmed, particularly because of unchanging tough

conditions that people with substance abuse experience and the uncertainty of returning to normal family and larger community circumstance without any support system.

The findings support that individual internal cognitive perceptional assets and external social support assets are core to staying sober but there was no evidence in this study that supports the role of length of stay in treatment and recovery settings. These are complex, but important factors that contribute to the process and maintenance of recovery and sobriety from substance abuse. Practical implications suggest that recovery is a consequence of multiple assets, internal and external to the individual with addiction, and harnessing these assets and making them available for one people in recovery may increase the chances of recovery.

Appendix A

CONSENT TO PARTICIPATE IN RESEARCH

Assets Evaluation as bases for substance abuse Community based treatment, recovery program development in Africa.

What is the purpose of this research?

You have received this survey packet because your treatment/ recovery center was randomly selected from a list of all treatment and recovery settings in Kenya. We are asking you to be in a research study because we are trying to learn more about how well substance abuse recovery / treatment, settings provide care for their recovery groups, as well as how local community is in relation to assessing assets that would facilitate recovery from substance abuse. You are invited to participate in this study because you are a member of the recovering people in community, or at present a resident of a recovery / treatment center. The study is being conducted by Elias Kinoti Kithuri, a doctoral student at DePaul University. The research is for his dissertation and is being supervised by Dr. Leonard Jason, who is a professor at DePaul University.

How much time will this take?

This study will take about 50 minutes of your time.

What will I be asked to do if I agree to participate in this study?

If you agree to be in this study, you will be asked to fill out a survey. This survey will include questions about your personal experience with substance abuse, possible treatment, and recovery journey. The questions will also ask you about your observation of any support systems at the present living situation, as well as the larger local community that you think is helping you and others in recover from substance abuse. You will also be asked to complete a questionnaire that collects some personal information about you such as age, race/ethnicity, marital status, and employment status, level of education, other life history information, and your substance use.

What are the risks involved in participating in this study?

Although we ask that you do not record direct identifiers on the survey, there is a small chance that should someone get access to your completed survey, they could link your answers to you. We have put protections in place to prevent this from happening. There is a chance that you may be upset or uncomfortable

with some of the questions in the survey. You can choose not to answer any question or to stop completing the survey at any time.

What are the benefits of my participation in this study?

You will not personally benefit from being in this study. However, we hope that what we learn will help recovery, treatment, and scientific communities had better understand helping behaviors in meetings the needs and demands as well as rallying assets to treatment and recovery for people with substance abuse disorders.

Will I receive any kind of payment or reimbursement for being in this study?

To thank you for being in the study and if you are interested, and share with you some gifts in form of items. Your gift will be given to you separately from your answers to the survey, so your survey responses will remain confidential.

Can I decide not to participate? If so, are there other options?

Yes, you can choose not to participate. The information is being collected solely for the purpose of this research. Your participation is voluntary, meaning you can choose not to participate. There will be no negative consequences if you decide not to participate. Your decision whether or not to be in the research will have no effect on your residency in the Oxford House.

How will the confidentiality of the research records be protected?

The records of this study will be kept confidential. In any report we might publish, we will not include any information that will identify you. Research records will be stored securely and only the researchers will have access to the records that identify you by name. Some people might review our records in order to make sure we are doing what we are supposed to. For example, the DePaul University Institutional Review Board may review your information. If they look at our records, they will keep your information confidential.

Whom can I contact for more information?

If you have questions about this study, please contact Elias Kinoti Kithuri at the Center for Community Research, DePaul University at (773) 325-4962, keynotes1972@yahoo.com or his supervisor Leonard Jason at the Center for Community Research, DePaul University at (773) 325-2018. If you have any questions about

your rights as a research subject, you may contact Susan Loess-Perez, DePaul University's Director of Research Protections at 312-362-7593 or by email at sloesspe@depaul.edu.

Statement of Consent:

By completing and returning the attached survey, you indicate your consent to participate in this research.

Appendix B

DePaul University Substance recovery/ treatment settings Assets evaluation survey

Please take your time to complete the survey. If you need a break, try to do so after you have completed one of the four sections, but please try completing the entire survey in same period. There are four sections: 1 asks questions about yourself, personal experience in treatment/ recovery process, The second section (2) asks questions about your experience in your interpersonal relationships or social groups, and finally the third (3) sections asks Questions about your experience of recovery in context of the large local community your neighborhood and beyond. Please read the guide above each section and respond accordingly.

1.Gender Male ☐ Female ☐

2. Date of Birth Month ☐ Date ☐ Year ☐

3. What is the name of your tribe ☐

4. Which is your home county ☐

5. If different which county have been living in the last 6 months_____

6 .Marital Status (check one only)

- ☐ Single, never married
- ☐ Legally married
- ☐ Life partner but not legally married
- ☐ Separated but still married
- ☐ Divorced
- ☐ Windowed

7. Employment status (check only one)

- ☐ Full time
- ☐ Part time

- ☐ Unemployed
- ☐ Receiving disability
- ☐ Retired
- ☐ Student
- ☐ Self employed

8. How many years of education have you completed (check only one)

- ☐ 1-8th grade / class
- ☐ 1- 4th Form
- ☐ 5th – 6th Form
- ☐ Vocational school
- ☐ Some collage
- ☐ Associate degree
- ☐ Undergraduate degree
- ☐ Graduate degree

9. How long have you actively using drugs and or alcohol?

Years ☐ Months ☐

10. How often do you attend 12-step meetings in a week, if ever? _____ (please provide a number and time; for example 2 times a week).

11. Is there anyone else in your current 12step group who is of the same tribe as you?

Yes ☐ No ☐ I never attend 12-step ☐

12. How long in total have you been in the preset recovery / treatment condition

Years ☐ Months ☐

13. How would you describe the type of your present treatment/ recovery place?

☐ Professional treatment/ hospital rehab/

- ☐ Therapeutic community, structured counseling and behavioral change setting
- ☐ Peer/people with addiction self-run home
- ☐ Half house
- ☐ Living with my family
- ☐ Home-but attend AA/NA based Self-help group meetings Only
- ☐ Others(specify_____

14. How long do you plan to stay in your current place?

Years ☐ Months ☐

15. Is there anyone in your present recovery place from your county?

Yes ☐ o ☐

16. Have ever been in prison?

Yes ☐ No ☐

17. Who first referred you to the present treatment or recovery place

- ☐ Court
- ☐ Probation or Parole)or commit service
- ☐ Treatment provider
- ☐ Friend or family
- ☐ Another person in recovery
- ☐ Referred myself
- ☐ Other-_____

Here are a number of potential problems that may or may not apply to you please indicate the extent to which you have been bothered by any problems in each section. For each section, indicate how important treatment is for you.

1. How long have you been living in the present place Years ☐ Months ☐

2. Do you have a religious preference

☐ Protestant Specify_____
☐ Catholic
☐ Jewish
☐ Islamic
☐ Other specify _____
☐ None

3. Have you been in any of these controlled environment in your life

☐ No
☐ Jail
☐ Alcohol/drug detox/ treatment
☐ Medical treatment
☐ Psychiatric treatment
☐ Self-help residence
☐ Other _____

4. How many days were you there Total days ☐

5. How many times in your life have been hospitalized for medical problem ☐☐

6. Are you taking any prescribed medication on a regular basis for a physical problem

Yes ☐ No ☐

7. Do you have chronic medical problem which continue to interfere with your life

Yes ☐ No ☐

8. How many years have you experienced medical problem not related to drug / alcohol use your adult life

Years ☐ Months ☐

	Not at all	Slightly	Moderately	Considerably	Extremely
9. How troubled or bothered have you been by these medical problems in the last 30 days	0	1	2	3	4
10. How important to you now is treatment for these problems	0	1	2	3	4

11. How long was your longest full time job? Years ☐ Months ☐

12. What work did you do then? Name _____

13. Is there someone other than yourself, who contribute for most of your support now?

Yes ☐ No ☐

14. Which of these describes your most usual employment pattern in the past 3 years

☐ Full time
☐ Part Time
☐ Student
☐ Occasional Servic job
☐ Retired /disability
☐ Unemployed

15. How many days were you paid for working in your adult life? Years ☐☐ ☐☐☐ days

16. How much did you receive from the following sources in your life

a) Employment ☐☐☐☐

b) Unemployment Compensation ☐☐☐☐

c) Welfare ☐☐☐☐

d) Pension, benefits, national security ☐☐☐☐

e) Mate, family or friends

f) Illegal example drugs dealing

17. How many people depend on you for majority of their basic needs; food, shelter, e.tc

18. How long have ever experienced unemployment in your adult life Yes No

	Not at all	**Slightly**	**Moderately**	**Considerably**	**Extremely**
19. How troubled or bothered have you been by these employment problems	0	1	2	3	4
20. How important to you now is counseling for these employment problems	0	1	2	3	4

21. How many times in your lifetime have you been treated for Alcohol Abuse?

22. How many times in your lifetime have you been treated for Drug Abuse?

23. How many of these were detox only for: Alcohol Drugs

24. By estimation how much money do you think you spent during the last 30 days of your substance abuse on?

25. Did you come to treatment/recovery by suggestion of judge/ probation/ parole officer Yes No

26. Are you on Parole or probation/ community service? Yes No

Please indicate which of the following ways/ route of ingesting you most used for

each of the corresponding Substances

		Route of administration you used				
		Oral	**Nasal**	**Smoking**	**Non-IV injection**	**Iv injection**
1	Alcohol (social use)	1	2	3	4	5
2	Alcohol (Intoxication)	1	2	3	4	5
3	Heroin	1	2	3	4	5
4	Methadone	1	2	3	4	5
5	Other Opiates (morphine, codeine,)	1	2	3	4	5
6	Barbiturates (sleep, relaxing drugs)	1	2	3	4	5
7	Sedatives/Hypnotics/ tranquilizers/antianxiety	1	2	3	4	5
8	Cocaine	1	2	3	4	5
9	Amphetamines (Benzedrine, Dexedrine, Methedrine, desoxyn)	1	2	3	4	5
10	Cannabis Sativa, Bhang, Marijuana)	1	2	3	4	5
11	Hallucinogens	1	2	3	4	5
12	Inhalants	1	2	3	4	5
13	More than 1 substance per day	1	2	3	4	5

	Not at all	**Slightly**	**Moderately**	**Considerably**	**Extremely**
19. How troubled or bothered have these **alcohol** problems been to you?	0	1	2	3	4
20. How important to you now is treatment for these alcohol problems	0	1	2	3	4
21 How troubled or bothered have you been by these drug problems	0	1	2	3	4
22. How important to you now is treatment for these **drug** problems	0	1	2	3	4

23. How many times in your life have you been arrested and charged with following

Shop lift			8. Assault		
Parole/Probation/community service			9. Arson		
Drug charges			10. Rape		
Forgery			11. homicide/ Manslaughter		

Weapons offense		12. Prostitution	
Burglary /Larceny/ Breaking and Entry		13. Contempt of Court	
Robbery		14. Other	

4. How many of the above charges resulted in convictions

5. How many times in your life have you been charged with the following

Disorderly conduct, vagrancy, public intoxication

Driving while intoxicated

Major driving violations , speeding reckless driving

6. Are you presently awaiting charges, trail, or sentence Yes o

7. How many times have you been detained or incarcerated because of drug/alcohol related issues?

8. Estimate how many times in the past 30 days have you engaged in illegal activities, drug dealing, Prostitution, selling stolen goods for profit

	Not at all	**Slightly**	**Moderately**	**Considerably**	**Extremely**
9. How serious do you feel your present legal problems are	0	1	2	3	4
10. How important to you now is counseling or referral for these legal problems	0	1	2	3	4

1. Are you satisfied with your present marital status situation Yes No

2. Which of these best describes your most usual living arrangements in the past 3 years

a. With sexual partner & children

b. With sexual partner alone ☐
c. With children alone ☐
e. With parents ☐
f. Living With family ☐
g. With friends ☐
h. Alone ☐
i. Controlled environment ☐
j. No stable living arrangements ☐

14. Are you satisfied with you living condition? Yes ☐ No ☐

15. Do you live with someone who

i. Has a current alcohol problem Yes ☐ No ☐

ii. Use non prescribed drugs Yes ☐ No ☐

16. With whom do you spend most of your free time?
Family ☐ Friends ☐

17. Are you satisfied spending your free time this way
Yes ☐ Indifferent ☐ No ☐

18. Have you had significant periods in which you have experienced serious problems along with;

	In past 30 days		**In your life**	
	Yes	No	Yes	No
a. Mother				
b. Father				
c. Brother sister				
d. Sexual				

Partner/Spouse				
e. Children				
f. Other significant family specify				
g. Close friends				
h. Neighbors				
i. Co-workers				

	In past 30 days		**In your life**	
Have any one ever abused you	Yes	No	Yes	No
Physically, cause harm				
Sexually, forced sexual acts				

The questions below ask you how likely you are to engage in the activities relating to the twelve step program in the next 12 months. If you attend twelve steps groups during in the next 12 months, how likely is it that;

	Extremely Unlikely	**Very unlikely**	**unlikely**	**Not sure**	**Likely**	**Very likely**	**Extremely likely**
1. I will be able to avoid drinking and using substance	1	2	3	4	5	6	7
2. I will feel like I belong	1	2	3	4	5	6	7
3. I will meet people who support me in my recovery	1	2	3	4	5	6	7
4. I will learn what to do when I want to drink and use drugs	1	2	3	4	5	6	7
5. I will help others while I help myself	1	2	3	4	5	6	7

Now think about the people in your life. How favorable do the following people feel about your attending 12-step groups in the next 12 months? (Please check one for each line) if you have none of the mentioned relationship choose(0)

	Extremely unfavorable	**Very un fa vorable**	**Unfavorable**	**Neutral/ I can't judge**	**favorable**	**Very favorabl e**	**Extremely favorable**	**non e**
6.My group of friends	1	2	3	4	5	6	7	0
7. My partner/ spouse	1	2	3	4	5	6	7	0
8.my children	1	2	3	4	5	6	7	0
9. Other people who know am already in recover y	1	2	3	4	5	6	7	0

Now, assume that you wanted to attend 12-step group in the next 12 months. How much do you agree with the following statements (please check only one)

	Ver y strongly disagree	**Str ongly disagree**	**d isagree**	**n eutral**	**a gree**	**Str ongly agree**	**ery stro ngl y agr ee**
10. I intend to attend 12-step group in the next 12 months	1	2	3	4	5	6	7
11. I Plan to attend a 12-step group in the next 12 months	1	2	3	4	5	6	7
12. I will try to attend a 12 step group in next 12 months	1	2	3	4	5	6	7

Please enter initials or name of your four most important persons in this row for each of the numbers 1-4

Put the Names or Initials of the four most important person in your life

1st Person	**2nd person**	**3rd person**	**4th person**
_____	_____	_____	_____

What is the Gender of each of the 4 persons	**1= M = male, 2= F = female)**			
	1st Person	**2nd person**	**3rd person**	**4th person**

Place Number that apply for each the person to indicate their Treatment Condition Status as of present	**0= has no Addiction problem; 1= professional treatment rehab, 2= self-run resident place, 3=same place with me**			
	1st Person	**2nd person**	**3rd person**	**4th person**

Relationship with each 4 persons place a Number	**1= Spouse, 2= Children, 3= Parent, 4= Brother/sister, 5= Other family, 6=Ex-intimate,7=Boy/Girlfriend, 8=Work friend, 9=AA/NA Friend, 10=Other**			
	1st Person	**2nd person**	**3rd person**	**4th person**

For each of these 4 persons how far from you would you say this person is?	**1= 0-2 kms, 2= 3-10 kms, 3= 11-20 kms, 4= 21-50 kms, 5= 100+ kms, 888= I don't know, 999= Refuse to tell**			
	1st Person	**2nd person**	**3rd person**	**4th person**

For each the above persons how long have you known him or her.	**1st Person**	**2nd person**	**3rd person**	**4th person**
	(yrs_____) (months_____)	(yrs_____ ____) (months_____)	(yrs_____ ____) (months_____)	(yrs_ __) (months_)

During the past 6 months, how often have you been in contact with…each of these persons?	**7=daily (7times a week), 6=three to six times a week, 5=once or twice a week, 4=every other week, 3=about once a month, 2=less than monthly, 1=once in past 6 months, 0=no contacts don't list this person then**			
	1st Person	**2nd person**	**3rd person**	**4th person**

6= extremely supportive, 5= very supportive, 4= supportive, 3 =somewhat supportive,

2= not very supportive, 1= not at all supportive , 888 = I don't know

How generally supportive is each of the 4 persons you indicated?				

1= Emotional aid listen, advise, 2= Material aid, goods, money, 3= information. Directions,

4= Companionship, discussions, doing things together, 888= I don't know

If this person is supportive of you, what kind of support do they typically provide?				

5= Heavy drinker, 4= Moderate drinker, 3= light drinker,

2= abstainer, 1= Recovering alcoholic, 0= never drunk

Drinking Status of the person				

7= daily, 6= 3-6 times a week, 5= 1-2 times a week, 4= about every other week, 3= about once a month,

2= less often than monthly, 1= once in past four months, O= not in past four months, 888 I don't know

How often does this person drink				

alcohol?				

4 = 10 0r more, 3= 6-9 times, 2= 3-5 bottles, 1= 1-2 bottles,
0= Doesn't drink, 8888= don't know

When drinking, what is the largest amount in bottles this person drinks most in one day?				
Person Name/Initials as above	1)	2)	3)	4)
5= heavy drug user, 4 Moderate drug user, 3= Light drug user, 2= Abstainer, 1= Recovery drug user				
Drug Status of the person				

7= daily (7times a week), 6= three to six times a week, 5= once or twice a week, 4= every other week,
3= about once a month, 2= less than monthly, 1= once in past 6 months, 0= no contacts don't list this person then

How often does this person use drugs?				

4 = 10 0r more, 3= 6-9 times, 2= 3-5 bottles, 1= 1-2 bottles,
0= Doesn't drink, 8888= don't know

When using drugs, what is the most used in one day?				

6= extremely supportive, 5= very supportive, 4= supportive, 3 = somewhat supportive, 2= not very supportive, 1= not at all supportive , 8888= I don't know

How does this person feel about your getting alcohol/drug treatment?				
	1 = Yes 0 = No , 888 = Don't know,			

. To your knowledge, does this person have a criminal background?				
Most Important People Information				
. Person number (for the 4 MIPs)	1	2	3	4

6= Extremely Important, 5= Very important, 4= Important, 3 = Somewhat important, 2= Not very important, 1= not at all important, 888= Don't know

. How important has this person been to you?				

7= Completely liked, 6= very much liked, 5, Quite a bit liked, 4 = Mixed feelings, 3= Disliked, 2= Disliked a lot, 1= Completely disliked, 888= Do not know.

. How much have you liked this person?				

5= Encouraged, 4= Accepted, 3= Neutral, 2= Dint accept, 1= Left, made you leave/ imposed similar consequence, 888= Don't know

. How has or would this person react to your drinking?				

5= Encouraged, 4= Accepted, 3= Neutral, 2= Dint accept, 1= Left, made you leave/ imposed similar consequence, 888= Don't know

. How has or would this person react to your <u>NOT</u> drinking?				

5= Encouraged, 4= Accepted, 3= Neutral, 2= Dint accept, 1= Left, made you leave/ imposed similar consequence, 888= Don't know

. How has or would this person react to your using drugs?				

5= Encouraged, 4= Accepted, 3= Neutral, 2= Dint accept, 1= Left, made you leave/ imposed similar consequence, 888= Don't know

How has or would this person react to your NOT using drugs?				

6= strongly support, 5= support it, 4= Neutral, 3= Mixed feelings, sometimes support/ others not, 2= opposes it, 1= strongly opposes it, 7 = I don't know I haven't gotten treatment

How does this person feel about a self-help program as part of your treatment?				

6= strongly support, 5= support it, 4= Neutral, 3= Mixed feelings, sometimes support/ others not, 2= opposes it, 1= strongly opposes it, 7 = I don't know I haven't gotten treatment

How does this person feel about your treatment/recovery setting?)				

Below are a series of statement statements referring to your neighborhood, where you have lived most of your life with family and friends or even where you grew up. Please indicate how you agree with each one of them. Please check by circling only one number that best represents you feelings on neighborhood for each of the alternative.

	Strongly disagree	**Disagree**	**Somewhat disagree**	**Neither agree/ disagree**	**Somewhat agree**	**gree**	**Strongly agree**
1. The adults in my neighborhood are concerned with the well-being of the people with drugs/alcohol problems.	1	2	3	4	5	(	7
2.People of	1	2	3	4	5	(	7

with issues as mine, substance abuse can find adults in my neighborhood to help us solve related problems							
3. The adults in my neighborhood say that people with alcohol and drug use problems must be heard.	1	2	3	4	5	(	7
	Strongly Disagree	**Disagree**	**Somewhat Disagree**	**Neither agree/ Disagree**	**Somewhat agree**	**gree**	**Strongly agree**
4.In my neighborhood, when people make decisions that affect people with alcohol/drug use problems they listen to the people with problems	1	2	3	4	5	(	7
5. People in my neighborhood value people with alcohol /drug abuse problems.	1	2	3	4	5	(	7
6. People with alcohol and drug problems feel valued by	1	2	3	4	5	(	7

people in the neighborhood.							
7.I feel I am part of my neighborhood	1	2	3	4	5	(	7
8.I feel very connected to my neighborhood	1	2	3	4	5	(	7
9. I have very close ties with people in my neighborhood.	1	2	3	4	5	(	7
10.Living in my neighborhood makes me feel that I am I am part of a community	1	2	3	4	5	(	7
11.I identify with my neighborhood	1	2	3	4	5	(	7
12.Iam proud to live in my neighborhood	1	2	3	4	5	(	7
13.In my neighborhood, people are afraid of being mugged and robbed	1	2	3	4	5	(	7
14.In my neighborhood, there are people who sell drugs and alcohol	1	2	3	4	5	(	7
15.In my neighborhood, there are often fights between gangs/ groups	1	2	3	4	5	(	7
16.Some of	1	2	3	4	5	(	7

my friends are afraid to come to my neighborhood							
17.People in my neighborhood commit crimes and hooliganism	1	2	3	4	5		7
	Strongly Disagree	**Disagree**	**Somewhat Disagree**	**Neither agree/ Disagree**	**Somewhat agree**	**gree**	**Strongly Agree**
18.In my neighborhood, you can stroll take a walk calmly through the roads	1	2	3	4	5		7
19. If a person with alcohol/ drug problems painted some work of art in my neighborhood, people would reprimand him/her.	1	2	3	4	5		7
20.People in my neighborhood would try to prevent people with alcohol/ drug problems from cleaning little around	1	2	3	4	5		7
21. If a person with alcohol/ drug problem in my	1	2	3	4	5		7

neighborhood is mistreating an animal, people would intervene to protect it.							
22.People in my neighborhood reprimand people with alcohol/drug problems if we damage trees or public gardens	1	2	3	4	5	(	7
23.If a person with alcohol/drug problem tried to damage a car, people would try to stop him/her	1	2	3	4	5	(	7
24. In my neighborhood, if you get into hooliganism, people will scold you.	1	2	3	4	5	(	7
25. In my neighborhood, people with can practice many sports.	1	2	3	4	5	(	7
26.People with alcohol/drug abuse disorder in my neighborhood have places to get together during bad	1	2	3	4	5	(	7

weather							
27. People in my neighborhood can do so many things during leisure time 9after school, work, that are most rarely get bored	1	2	3	4	5	(	7
28. During vacations/ holiday, there are many activities for people to have fun in my neighborhood	1	2	3	4	5	(	7
29. There are few neighborhoods such as my own, where there are as many activities for all people.	1	2	3	4	5	(	7
30. In my neighborhood, you do not have to go elsewhere for fun.	1	2	3	4	5	(	7

Appendix C.

Item Reliability for Alcohol Abstinence Intention and Assets Based Community development scales

		N	Mean	Variance	SD	
AAIM Scale		14	70.14	353.03	18.79	
	Mean	Minimum	Maximum	Range	Max/Min	Variance
Item-Means	5.010	3.78	5.755	1.972	1.521	.353
Item-variance	5.743	2.726	20.242	17.516	23.867	21.872
Inter-Item Correlations	.329	.057	1.000	.943	17.696	.046
	Mean Item deleted	Variance item deleted	Corrected item Total correlation	Squared Multiple Correlations	Alpha item deleted	
AAIM1	64.82	312.54	.53		.82	
AAIM2	64.39	295.11	.24		.86	
AAIM3	64.55	312.08	.63		.81	
AAIM4	64.72	316.72	.49		.82	
AAIM5	64.45	312.18	.63		.82	
AAIM6	65.92	309.43	.44		.82	
AAIM7	65.75	292.69	.56		.81	
AAIM8	66.36	301.86	.406		.83	
AAIM9	64.98	308.58	.52		.82	
AAIM10	65.01	314.84	.57		.82	
AAIM11	65.13	313.46	.59		.82	
AAIM12	65.03	319.70	.52		.82	
AAIM13	65.01	314.84	.57		.82	
AAIM14	65.76	292.69	.55		.81	

Reliability Coefficient for 14 items Alpha = .83 Standardized item Alpha = .87

		N	Mean	Variance	SD	
Scale ABCD		30	125.91	1057.06	32.51	
	Mean	Minimum	Maximum	Range	Max/Min	Variance
Items Mean	4.20	2.91	5.36	2.45	1.84	.32
Items variance	5.38	2.36	24.97	22.62	10.61	20.44
Inter-Item Correlations	.22	-.07	.82	.893	-11.45	.03

	Scale Mean Item deleted	Scale variance item deleted	Corrected item Total correlation	Squared Multiple Correlations	Alpha if item deleted
ABCD1	121.85	988.52	.44	.58	.87
ABCD2	121.78	1000.78	.38	.62	.87
ABCD3	122.03	989.94	.49	.49	.87
ABCD4	122.18	977.90	.56	.53	.87
ABCD5	123.00	989.67	.51	.53	.87
ABCD6	122.77	975.78	.33	.25	.88
ABCD7	121,62	969.82	.66	.71	.87
ABCD8	121.66	962.47	.684	.81	.87
ABCD9	121.91	971.64	.63	.67	.87
ABCD10	121.62	967.70	.66	.79	.87
ABCD11	121.59	968.44	.66	.78	.87
ABCD12	121.38	984.46	.53	.67	.87
ABCD13	121.11	1001.91	.38	.38	.87
ABCD14	120.84	1007.87	.33	.52	.88

ABCD15	122.23	1001.74	.38	.55	.87
ABCD16	122.36	1005.38	.36	.57	.87
ABCD17	122.09	1006.56	.34	.60	88
ABCD18	121.1878	1014.90	.34	.388	.87
ABCD19	122.15	1028.85	.20	.37	.88
ABCD20	122.24	1015.24	.29	.46	.88
ABCD21	121.23	1013.78	.35	.43	.87
ABCD22	121.12	1019.01	.30	.49	.88
ABCD23	120.55	1019.70	.36	.40	.87
ABCD24	120.83	1011.05	.405	.51	.87
ABCD25	121.21	999.43	.47	.48	.87
ABCD26	121.89	990.56	.50	.43	.87
ABCD27	121.72	974.34	.63	.65	.87
ABCD28	121.50	950.96	.26	.34	.89
ABCD29	121.77	957.15	.34	.18	.88
ABCD 30	121.99	993.43	.46	.40	.87

Reliability Coefficients for 30 items Alpha .877 Standardized item Alpha .895

Appendix D;

Length of stay, Alcohol/drug intention, ASI scores, IP type of social network support and relationship distribution and community level assets

VARIABLE	N	M	SD	SE
Length of alcohol-drug abuse (yrs)	222	12.60		.63
Treatment	81	11.88	8.95	
Self-help	109	11.33	6.38	
Usual care	25	14.60	8.03	
Length of stay (Months)		13.97		2.67
Treatment	82	5.61	17.98	
Self-help	109	6.97	25.82	
Usual care	25	29.33	71.99	

Variable ASI composites	N	Severity score Min	Max	M	SD
ASI-Medical status	128	.00	.67	.08	.16
ASI -Alcohol status	184	.04	.56	.36	.14
ASI -Drug status	219	.00	.29	.11	.07
ASI -Legal status	15	.12	.62	.34	.14
ASI -Family Status	222	.25	.50	.36	.12
ASI -Psychiatric Status	217	.00	.73	.25	.16

Variable	N	M	Min	Max	SD
Alcohol-drug Abstinence Intention					
Attitude	221	5.52	1.00	18.40	1.78
Control	220	4.94	.80	7.00	1.50
Norm	222	4.39	.00	7.00	1.94
Community assets					
Support empowerment	222	3.64	1.00	8.30	1.56

Attachment	222	4.29	1.00	7.00	1.78
Security	222	4.27	1.00	7.00	1.37

Variable	N	M	SD	%
Type of support				
Emotional	222	1.21	1.30	38
Material	222	.75	1.10	24
Informational	222	.46	.86	15
Companionship	222	.74	1.21	23

Social control	222	4.54	1.00	7.00	1.17
Available Activities	222	4.21	1.00	17.67	1.84

Variable	# of IP out 4	N	%
Emotional support	0	89	40.10
	1	55	24.80
	2	39	17.60
	3	20	9.00
	4	19	8.60
Material support			
	0	122	55.00
	1	60	27.00
	2	24	10.80
	3	5	2.30
	4	11	5.00
Informational	0	157	70.70
	1	42	18.80
	2	13	5.90
	3	6	2.70
	4	4	1.80
companionship			
	0	139	62.60
	1	45	20.30
	2	12	5.40
	3	9	4.10
	4	17	7.70

Variable	N	%	M	SD
Type of Relation				

Family	222	25.23	1.11	.00
Parents- Sibling	222	30.45	1.34	2.40
Significant other	222	13.41	.59	.20
Work mate	222	13.41	.59	.19
AA/NA	222	10.68	.47	.10
Others	222	6.82	.30	.04

Variable	# out 4	N	%
IP-Relationship			
Family	0	114	51.40
	1	61	27.50
	2	25	11.30
	3	12	5.40
	4	10	4.50
Parents-Sibling Family	0	31	14.00
	1	23	10.40
	2	50	22.50
	3	63	28.40
	4	55	24.80
Significant Other	0	191	86.00
	1	24	10.80
	2	3	1.40
	3	2	.90
	4	2	.90
Work mate	0	195	87.80
	1	15	6.80
	2	9	4.10
	3	2	.90
	4	1	.50
AA/NA Friend	0	208	93.7
	1	10	4.50
	2	2	.90
	4	2	.90
Others friends	0	217	97.70
	1	4	1.80
	2		
	3		
	4	1	.50

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