

**EFFECTIVENESS OF BRIEF MOTIVATION INTERVENTION IN
BUILDING RESILIENCE AGAINST SUBSTANCE USE AMONG STUDENTS
IN SECONDARY SCHOOLS IN KIAMBU COUNTY, KENYA**

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**A RESEARCH PROJECT SUBMITTED TO THE SCHOOL OF HUMANITIES
AND SOCIAL SCIENCES IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTERS OF
ARTS (COUNSELLING PSYCHOLOGY) OF KENYATTA UNIVERSITY**

JUNE, 2022

DECLARATION

Declaration by the Student:

I hereby declare that this is my original work and has not been presented for examination in any other university.

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Declaration by the Supervisors:

This project has been submitted for examination with our approval as the University Supervisors.

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ABSTRACT

Drug and substance abuse among high school learners has been on the rise in Kenya. Cases of learners' involvement in felonies resulting to school unrests and other negative consequences on students in secondary schools are on the rise. There are various committees set up by the government to investigate the real causes of school unrests, however the reports are yet to be made public. Guidance and counseling teachers in secondary schools have been at the forefront in providing counseling programs which apply diverse skills to assist in breaking drug and substance abuse (DSA). The purpose of this study was to assess the effectiveness of brief motivation intervention on building resilience against substance use among students in secondary schools in Kiambu County, Kenya. The study objectives were to: assess the effectiveness Brief Motivation Interventions on increasing problem solving skills among students in secondary schools in Kiambu County; examine the effectiveness of Brief Motivation Interventions on the decision making capability of students in secondary schools in Kiambu County; assess the effectiveness of BMI strategy on self-efficacy building on students in secondary schools in Kiambu County and establish the challenges faced by schools in implementation of BMI in secondary schools in Kiambu County. The target population consisted of 1,717 secondary school students. A sample of 172 participants were purposefully selected to participate in the study. The study was guided by McClelland's' Human Motivation theory and Resilience Theory. Experimental design was adopted to guide the study using the BMI with a pre-test and post-test. The teachers were trained on application of BMI in guidance and counseling and how to expose the student to BMI protocols. The participants selected were placed in either the experiment or control group. The experiment group was taken through the BMI protocol while the control group was exposed to normal guidance and counseling procedures used in secondary schools. Data collected was analysed using descriptive statistics with the aid of SPSS (Version 24) computer programme. The study established that BMI improved the decision making skills with reduced use of cannabis taken from a mean of 3.7 before BMI intervention to 1.6 after BMI intervention. There was a significant change in resetting priorities with a shift from a mean of 2.6 before BMI intervention to 3.9 after BMI intervention. Self-efficacy also statistically increased from a mean of 2.6 to 3.9 in prioritizing their academics after undergoing BMI intervention. The study generated data for use by guidance and counseling teachers and school heads to underscore the importance of guidance and counseling in secondary school in Kenya. It also provides material for use by researchers in the field of guidance and counseling in schools.

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ABBREVIATIONS AND ACRONYMS

BMI: Brief Motivation Intervention.

DSA: Drugs and Substance Abuse

G&C: Guidance and Counseling

HIV: Human Immunodeficiency Virus

OECD: Organization for Economic Cooperation and Development

SAMHSA: Substance Abuse and Mental Health Services Administration

DEFINITION OF TERMS

Brief Motivation Intervention: A technique used to initiate change through motivation for unhealthy or risky behavior such as alcohol misuse.

Decision Making Skills: acquisition of a wide frame of analyzing aspects of a students' life from a drug resistance point of view through analysis of effects of drugs on student's life in terms of academic performance and general status in the community.

Problem solving skills: This is the ability of students who were previously abusing drugs and after successful BMI are able to handle difficult and challenging events/circumstances in school and in the community by using logic to make plausible choices.

Resilience: It is the ability of a student who has recovered from DSA to stop and say no to drug and substance abuse after undergoing a series of interventions against substance abuse which is achieved through strengthening the students' capacity to solve problems, make viable decisions and build the students self-efficacy.

Self-efficacy: This is the ability of a student who has undergone BMI to believe in own ability to exert control over own situation/circumstances.

Substance abuse: It is the harmful use of psychoactive substance, including alcohol and illicit drugs among secondary school students.

CHAPTER ONE

INTRODUCTION

1.1 Background to the study

Substance abuse among high school students is a common challenge that face school administrators. Indeed, Urrego (2012) argued that substance abuse is a serious problem particularly the adolescent. Substance abuse is associated with overall academic and health problems among secondary school students (Mendez, 2018). Kamenderi, et al. (2019) noted that drug and substance abuse among secondary school students stood at over 38%. This shows that substance abuse is very rampant since four out of every ten students were found to be abusing drugs. The study showed that the ages 13 to 17 year was the most critical part of secondary school children where they were introduced to drugs and other substances that are commonly abused including alcohol, bang, khat, and other drugs. This was attributed to poor parenting since majority of the students cited use of drugs and other substances was initiated from their homes and not in schools. This clearly shows that drug and substance abuse was a chronic problem in secondary schools in Kenya.

A study by Ondigo, Birech and Gakuru (2019) noted that at least half of the students in secondary school were involved in drug and substance abuse. Among the effects were high rates of indiscipline among secondary school students in Kenya. Another effect was observed to be low self-esteem and involvement in crime as they sought funds to sustain drug and substance abuse. According to Mendez (2018), there are multiple health problems associated with substance abuse, and treatment of these diseases take up important learning time away from the learners. Common ailments

associated with substance abuse include; high spread HIV, tuberculosis and hepatitis B. Behavioural challenges associated with substance abuse according to Martinez (2015) pose the greatest challenge to academic progress of learners. According to Ongwae (2017) in Kenya, one out of every four students in urban centers was involved in substance abuse. In rural areas the study showed that one in every seven students was involved in drug and substance abuse. Therefore, Kenya faces a great challenge in dealing with drug and substance abuse among secondary school students.

Brief Motivation Intervention (BMI) is any short term strategy designed to offer clients an option and change option from an undesired or unacceptable behaviour to desired and generally acceptable behaviour pattern (Wentzel & Wigfield, 2007). Motivation is one of the processes that mostly influence the quality of all teaching and of all learning. Therefore, motivation should be present in any methodology of the curricula in the educational system. There are many strategies that encompass BMI. Some of the common ones according to Carey, Carey, Maisto and Henson (2008) include; Response-cost lottery, behavior contracts, mystery motivator, random positive teacher attention, and teacher contact. However, among learners the most common strategy is the teacher-contact where the teacher and the affected student have a series of sessions that involve discussion of issues affecting them and intervention strategy is developed. Another common strategy according to constant, et al. (2017) is the response cost lottery. In this strategy the teacher and the learner develops a strategy card with the targeted behavior to be eliminated is named and a menu of reward drawn.

BMI as a strategy emanated from some of the challenges in cognitive behavior therapy which was a general psycho-therapy based on social learning theory. Ndegwa

(2018) argued that cognitive behavioural coping skills therapy is one of the most common strategies used by guidance and counseling teachers to assist learners with substance abuse challenges. Ndegwa noted that cognitive behavior therapy was widely used among students where specific offices of the dean and school counselor operated daily. Ndegwa further noted that in educational institutions, the office of the school counselor should be established and enhanced to meet diverse student needs. However, in Secondary schools the subject teachers who had undergone in-service training held the office of the school guidance and counseling teacher as an extra responsibility apart from normal class teaching.

According to Grenard, Ames, Wiers, Thush, Stacy and Sussman (2011), application of BMI among students in fight against substance and drug abuse was important as it assisted learners to regain their esteem and focus on their studies. BMI was also rooted as a basic component for learners in adolescent stage as it cushions adolescents against repeated indulgence by highlighting individuals strengths as students participated in the process with notable improvements on their personalities and behavior over the follow-up sessions. Since BMI uses non-confrontational tact to assist learners fight drug abuse, it is more widely acceptable to many adolescents. BMI also provides additional tool that compliments the success rates among adolescents. Therefore, since BMI has had a higher acceptance rates and success rates among the adolescents, it was appropriate for this study.

A study conducted in Colombia found out that between 2002- 2017 there was a drastic increase in the number of high schoolers who indulged in substance abuse (Gutiérrez & Leiva, 2018). The study noted that tobacco consumption had experienced the highest increase from 38.8% of Colombian students to 45% of the

students having indulged in consumption by the year 2017. In the Colombian schools, marijuana consumption among high school students had increased from 14% to 35%, cocaine had risen from 2% to 9.7% whereas heroin increased from 5.2% to 12.3%. Gutiérrez and Leiva (2018) further noted that the measures taken by schools to cushion learners against substance abuse included guidance and counseling as well as involvement of local police to establish the source and suppliers. However, due to the complex nature and background of majority of the learners, the success rate of such programs was minimal. This shows that the problem of substance abuse among high school students was a global problem and some strategies such as BMI was more effective in addressing DSA among learners in public institutions.

A study conducted by OECD (2019) on status of drug and substance abuse showed that in the United States, estimated that 3.4% of 8th grade students, 9.7% of the tenth and 15.5% of the 12th grade students had registered harmful consumption of alcohol. In Canada, the estimates of harmful consumption were 27.8% of male students and 28% of female students had consumed alcohol during the year before the survey. The study noted that majority of schools used BMI interventions in counseling students. The study further noted that in 16 of the 20 countries that had similar indicators, at least one student in two had registered harmful consumption of alcohol in 2018. In countries with dissimilar prevalence, such as Belize, Chile, Guyana, Peru, Suriname and Uruguay, the harmful consumption of alcohol exceeds the 60% of students who used alcoholic beverages in the last month. Unlike this study that was specifically oriented towards BMI and alcohol use among high school learners, the current study does not limit itself on any particular substance abuse since the high

school students in the region are likely to indulge in several types of harmful substances thus the results may be divergent from OECD (2019).

A study by Borsari, et al. (2015) sought to establish the effectiveness of BMI techniques among students with alcohol related issues. The study used the Motivational Interviewing Skills code by Miller, Moyers, Ernst and Amrhein (2003) to underscore the relationship between in session process and brief motivational intervention in colleges. The study established that there was a relationship between the therapist behaviour and the client language. The findings showed that there was need for the therapists to consider technical and relational components of BMI since they influenced the substance use among the college students. In as much as this study analysed the application of in-process methods and subsequent client behaviour, the study highlighted a key component that is least regarded to influence the client behaviour; the therapist components.

A study by Moyers, Martin, Houck Christopher and Tonigan (2009) on the relational components of BMI on subsequent client behavior sought to underscore the theoretical explanation of the relationship between therapist clinical skills and client language. The study proposed that client were evoked to behaviour change through the therapists behaviour change talk. Through reflective listening, the therapists may involve behaviour change by also incorporating relational components and client factors. These three are key components needed for therapists to evoke client behaviour change. The role of therapists was to evoke self-expressed language as an instrument for evoking behaviour change. In this current study, the teachers do not have that in-depth knowledge as student therapists in secondary schools. Their level of indulgence as therapists may not be in-depth and as such their role in evoking

behaviour change may not be that prominent. In the current study, guidance and counseling teachers will replace student therapists in secondary schools.

The National Survey of Addictions (ENA) 2011, indicates that in Mexico, the prevalence of alcohol consumption at the national level corresponds to 51.4% for its population aged 12 to 65; with respect to the distribution by sex, 62.7% corresponds to the male and 40.8% to women. In the population aged 12 to 17 years, which is a schooling population in Mexico, the prevalence of 30% alcohol consumption, of which 31.8% corresponds to the male sex and 28.2% to the female sex. This scenario reflected the health problem in adolescents, a stage that was most vulnerable to DSA. The alcoholism in this group develops into a high risk health challenge and this is also made complex due to high incidences of smoking and general drug abuse. The findings were consistent with Herrera (2014) who confirmed that drinking alcohol in adolescence was a gateway to use other drugs. Herrera further observed that students who indulge in alcohol while schooling have high levels of indiscipline. With respect to the motive and the sensations perceived by the adolescent while consuming alcohol, it has been observed to consume alcohol gives them pleasure and the taste of the drink is pleasant, in addition to looking to experience and know what it feels like try something new.

A study conducted in a high school in Mexico by González, Jiménez, Barajas and Franco (2015), it was found that the age of onset of alcohol consumption was between 10 and 14 years and the reason for its consumption was out of curiosity in 91%. More than half of the students who drank alcoholic beverages did it for taste and when consumed they felt pleasure. The learners who use drugs rarely listen to instructions

and are deviant in nature. Herrera argued that it was high time the government became strict with business people who sold alcohol to schooling children.

In a study carried out on alcohol consumption and learner behavior in Ghanaian schools, Hormenu, Hagan and Schack (2018) noted that there was a high prevalence of alcohol consumption among school going adolescents in the country. The common contributors to this were cited as community festivals as well as cultural belief that alcohol was a form of a medicine. The study applied descriptive cross-sectional survey with multi-stage sampling of 1400 school attending learners aged 13-18 years. The study concluded that to avoid negative psycho-social behavior among adolescents, the education curriculum should incorporate preventive socio-cognitive behavior interventions teaching on drug resistance skills and anti-drug norms. The youth should be made aware of how to avoid peer pressure and assisted to develop competence skills to apply in life. This study proved that socio-cultural environment exposes young learners to alcohol and drug abuse which contributes greatly to psycho-social behavior issues among young students.

An experimental study on application of BMI on DSA by Grenard, Ames, Wiers, Thush, Stacy and Sussman (2016) showed a positive correlation between interviewers rating and the participant rating. The participants were treated by willingly discussing their drug abuse history. Using a positive evaluation strategy, it was evident that students who underwent the interventions were willing to change their behaviour and a higher percentage was able to desist from further substance abuse within a very short time.

A study on prevalence and predictors of alcohol and drug abuse among students in Botswana was carried out by Riva, Allen-Taylor, Schupmann, Mphele, Monshane, and Lowenthal (2018). The study adopted a cross-sectional survey in 17 secondary schools in the capital city and used an Alcohol Use Disorder Identification Test to collect data. The study analysed the association between alcohol use and all risk factors and established that the adolescents with high vulnerability risk factor were five times likely to indulge in hazardous drinking and anti-social behavior. The study also analysed the prevalence of suicidal thoughts among the high risk indulging group and established that a very high proportion of students in the hazardous alcoholic drinkers group considered suicide more often. This study used self-reported questionnaire to collect data and even though the respondents were assured of anonymity of their responses, chances of bias cannot be disregarded. The study established that counseling approach undertaken by most schools include parental involvement in counseling. The study advocated for alternative coping measures such as cognitive behavior therapy and use of BMI to assist learners quit substance abuse. The greatest challenge that Riva et al. (2018) noted was the inadequate staffing of schools with guidance and counseling personnel. This was the greatest challenge to effective behavioural modification among learners and this hampered application of BMI in schools.

A study on drinking patterns among secondary school students in Ethiopia was carried out by Reda, Moges, Wondmagen and Baidgilign (2012). The study adopted a cross sectional survey and sampled 1721 students. The study collected data over a long period of time and after analysis, it was established that there was a high level of alcohol use among the secondary school students in the region. The study established

that the community perception on alcohol consumption encouraged more young learners to indulge in alcohol. The study called for more pro-active actions from education stakeholders as well as the government to reduce the high prevalence to alcohol use among the schooling population. Associated with alcoholism in Ethiopia, the authors noted that there was a high propensity to exhibit anti-social behavior among the school going learners. The study established that cognitive behavior therapy was a little effective in assisting learners regain self-efficacy and cope well in school. The greatest challenge was teachers getting time to assist learners change their behavior due to lack of training on counseling strategies for adolescents.

In Kenya, King'endo (2010) carried out a study on incidences and extent of drug abuse among secondary school learners. The study was located in Nairobi metropolitan, Kenya. This study adopted an ex-post-facto research design. The study applied stratified sampling to sample 525 students and 14 school counselors. The study showed that there was a high prevalence of drug abuse among secondary school students in the region. The study further noted that the students who indulged in alcohol and drug use in secondary school exhibited behaviour characterized by anxiety, suicidal mentality, and nervousness among other anxiety associative behaviours. It was also noted that students who used alcohol and drugs did not like to relate to students who did not participate in alcohol and drug use. This was explained by fear of being found out and reported to school authorities. Learners who underwent complete sessions of counseling were able to cope well in school, make better decisions as well as enhance their self-efficacy. The study also noted that the key intervention strategy applied by the school administration to minimize drug and substance abuse was parental awareness. This was done since majority of the times,

students in the area under study was spent with parents at home. However, this study was carried out in Nairobi where majority of the schools were day secondary schools and thus students had access to alcohol and drugs on a daily basis.

In a different study in Kenya, Oketch (2008) noted that drug and substance abuse among secondary school students contributed to over 30% drop in academic performance. The study further noted that of all student unrests in Kenya, over 80% of the active participants were under the influence of drugs. However, the study noted that poor performance of guidance and counseling departments in secondary schools did not contribute to student behavior change. This necessitated re-introduction and re-examination of the guidance and counseling departments in secondary schools. Oketch further noted that guidance and counseling teachers underwent some form of training and therefore this current study seeks to underscore the effectiveness of the BMI strategies adopted by teachers in secondary schools to enhance student behaviour change.

Despite many studies delving into brief intervention strategies on drug and substance abuse among school going children, many of these studies focused on strategies to address the substance abuse and were non experimental. The current study is experimental in nature and will provide invaluable data on the effectiveness of brief motivation strategies in enhancing learner behavior modification. Many students with substance abuse history are reluctant to change their ways. According to Grenard, Ames, Wiers, Thush, Stacy and Sussman (2016), established that students with substance abuse history were unwilling to change their behaviour and showed little concern to traditional school programmes. In Kenya, there is need to carry out an

experimental study to provide convincing results on the effectiveness of brief motivational interventions of learners who are substance abusers in Kenyan schools.

1.2 Statement of the Problem

The ease of access to illicit substances among secondary school students in Kenya is high. However, few studies have focused on building resilience among secondary school students by taking them through Brief Motivation Interventions. Low resilience levels among substance abusers is an issue of concern as many students who have undergone substance abuse interventions roll back into drug and substance abuse. Despite introduction of guidance and counseling in schools, little comprehensive research has been carried out on the effectiveness of guidance and counseling strategies in Kenya. Lack of resilience is a major concern to teachers since one of their roles is to assist learners become responsible citizens who uphold societal agreed behavior. Most of the studies on alcohol and drug abuse among students concentrated on causal factors. Many studies in Kenya have been carried out on the role of guidance and counseling in assisting learners with drug and substance abuse challenges. The guidance and counseling strategies uses diverse learner friendly strategies such as BMI as they assist learners overcome DSA as well as modify learner's behavior. This study was to assess the effectiveness of brief motivation intervention on building resilience against use of substance among students in secondary schools in Kiambu County, Kenya.

1.3 Purpose of the Study

The purpose of this study was to assess the effectiveness of brief motivation intervention on building resilience against substance use among students in secondary schools in Kiambu County, Kenya.

1.4 Objectives of the Study

The study sought to address the following objectives;

- i. To assess the effectiveness Brief Motivation Interventions on increasing problem solving skills among students in secondary schools in Kiambu County.
- ii. To examine the effectiveness of Brief Motivation Interventions on strengthening the decision making skills of students in secondary schools in Kiambu County.
- iii. To assess the effectiveness of BMI strategy on building the self-efficacy on students in secondary schools in Kiambu County.
- iv. To establish the challenges faced by schools in implementation of BMI in secondary schools in Kiambu County.

1.5 Research Questions

This study sought to find answers to the following research questions;

- i. How effective is Brief Motivation Interventions in developing resilience among students in Kiambu County?
- ii. How effective is Brief Motivation Interventions in strengthening decision making skills of students in Kiambu County?

- iii. How effective is BMI on students' self-efficacy in Kiambu County?
- iv. What challenges do schools face in implementation of BMI in secondary schools in Kiambu County?

1.6 Justification and Significance of the Study

One of the greatest challenges facing guidance and counseling departments in schools is building learners' resilience against substance abuse. As soon as learners go through guidance and counseling sessions, they are likely to be rehabilitated and become an integral part of change agents in the community. There is therefore need to enhance the guidance and counseling in secondary schools to assist learners to build resilience against substance and drug abuse. This study would bring to the fore issues surrounding building resilience among students.

This study was also significant for the high school administrators since it evokes critical thinking on how to develop learners' resilience against drug and substance abuse. The study was useful to guidance and counseling teachers as it informs them on the use of BMI and its associated benefits on students who were previously engaged in DSA. Thus, by putting more emphasis on building learners resilience against drug and substance abuse, the teachers will enhance the students' resilience against DSA.

The study was important since it was aimed at assisting the general public on the effect of BMI in building learners residence against drug and substance abuse.

1.7 Scope and Limitations of the Study

In the course of carrying out the study, there are some factors that posed a challenge to the researcher. These factors required the researcher to prepare in advance and develop strategies to overcome them. The subject under consideration highly sensitive in nature and therefore some of the respondents would have shied away from volunteering to provide the necessary data. However, the intervention was implemented in a way that would ensure a safe environment with no harm to the participants. Efforts were taken to keep the information gathered confidential. The researcher developed instruments where the respondents placed their responses without fear of victimization as no personal identification information was placed which could be traced to individual respondents.

Another limitation is that the research was conducted in only one County of Kenya hence the findings were generalized to other areas with caution. This was overcome by the study striving to get a representative sample as possible by using purposeful sampling to select the study sample.

Similarly, the researcher was aware of the busy schedule in schools that would have limited the respondents to respond well to the research tool. To overcome this, the study was organised in such a way that the respondents had ample time to go through the research instruments and the same was collected at a later date.

1.8 Assumptions of the Study

These were important facts presumed to be true though not actually verified (Mugenda & Mugenda, 2003). The study was based on the assumption that:

1. All secondary schools had a fully functioning guidance and counseling departments under a trained counselor.
2. The guidance and counseling teachers were willing to apply the BMI.
3. That the respondents willfully participated in the study. This means that the respondents were willing to cooperate, be honest and truthful in providing information on the effect of brief motivation intervention on building resilience against substance use among students in secondary schools in Kiambu County, Kenya.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter contains a review of related literature on the brief motivation intervention and behaviour change among learners. The chapter also contains a review of theories related to the scope of the study. Finally, the section presents the conceptual framework that shows the relationship between the study variables and a summary of the chapter.

2.2 Theoretical Framework

This section briefly explains the theories that guided the current study. Two theories guided this study and they are explained below.

2.2.1 Resilience Theory

This study was guided by Resilience Theory as advanced by Ledesma (2012) who relied heavily on explanation of resilience theory in social sciences by (Henderson & Milstein, 1996). This theory provides a framework to understand adolescent development and forming interventions to assist them overcome circumstances in their life such as drug and substance abuse. The theory focuses on positive contextual, social and individual variables that disrupt development trajectories of an individual. It also seeks to provide explanation on how individuals bounce back from negative circumstances in their life. A student who successfully undergoes through

BMI is expected to bounce back and stop engaging in drug and substance abuse. Therefore, this theory underpins the development of self-efficacy consistently associated with good morals and behavior among the secondary school learners.

2.2.2 Human Motivation Theory

This study was pegged on McClelland's' Human Motivation theory. The theory argued that human beings have three indicative needs which were named as power, affiliation and achievement (McClelland, Atkinson, Clark & Lowell (1953). Therefore, human behaviour is directed by changes in any of the three needs through a non-specific response of the independent nervous system. Human Motivation Theory holds that the responses motivate an individual towards a given goal to reach a different affective state. This affective state may either be positive or negative. The direction of behaviour may be approach oriented which means the individual would want to maintain the state therein or it may be avoidance oriented where an individual wants to discontinue the current state.

Brief motivation intervention strategies are geared towards assisting learners towards avoiding the state of substance abuse and concentrate more in their academic life. This theory holds that motivation intensity is individual based and varies from one person to the next and thus these yields discrepancies in expectations and perceptions (Stadler, Becker, Gödker, Leutner & Greiff, 2015). However, the argument is that the real outcome of motivation is to bridge the gap between the expectations and perceptions. Although an individual learner makes very little changes, motivation arises since some steps towards a goal have been covered. This realisation enhances the participant's effort towards the desired scenario. Therefore, this theory holds that approach oriented mitigation efforts by teachers in form of BMI lead to a greater

engagement with learners and based on the progress of BMI the learner will achieve power and affiliation/achievement through improved academic performance. This accomplishment will in time dominate and guide the learner away from drug and substance abuse path.

2.3 Review of Related Literature

In this section the study reviews the studies done by various researchers on BMI and development of problem solving skills among school attending adolescents. The study adopts a three case approach starting from global perspective, African and local research on the area.

2.3.1 Brief Motivation Interventions and Enhancement of Problem-Solving Skills among Learners

Problem solving techniques involves a series of strategies that assists a learner to make plausible and best decisions to the benefit of all parties. Cooper, Cox and Nammouz (2019) argues that problem solving is one of the goals of intervention strategies including brief motivation strategies. Problem solving techniques are brooded under brief intervention strategies by assisting learners through the decision making models with a series of solution dichotomy. The counselor and the client moved step by step in analyzing the various aspects of the problem and diverging routes used to make the decisions available. The clients is also assisted to evaluate the consequences associated with each decision level reached by analysis of the pros and cons. Using this method, the client with time is able to effectively and efficiently make plausible decisions within a short time frame. Copet, Cox and Nammouz (2019) further argued that in development of clients' problem solving skills, the counselor

must be aware of the level of the clients' abilities in pre-counselling stage, collaborative stage and post counseling stage. If the client has developed better abilities to analyse a problem from various angles, such clients are able to solve their problems better as they are assumed to acquire a higher level of emotional quotient. Cooper, Cox and Nammouz (2019) research was experimental in nature and was carried out among students using a web based problem delivery system. The current study was based on one on one survey of guidance and counseling teachers in secondary schools.

A study on development of problem solving skills among substance abusers by Vindrine, Reitzel, Figueroa and Valesquez (2011) was carried out in Latin American Cities. The study took the approach clinical trials among smokers and sought to establish their problem solving skills. The study established that intervention strategies were effective in development of problem solving skills among adult smokers who quit and experience relapses in the process of stopping substances abuse. After the sessions, the learners were capable of following a definite problem solving process to arrive at amicable conclusions.

In Zambia, Tuchili and Ndhlovu (2018) carried out a study on the effect of strategies adopted by stakeholders to develop vocational and problem solving skills. The study was carried out in Zambia among public university students. The correlational study compared two sets of students, those who participated in guidance and counseling and those who had not participated in guidance and counseling sessions. The study established a statistical difference between learners who had undertaken intervention strategies and development of problem solving skills and those who did not undergone guidance and counseling. The study further noted that students who had

undergone intervention strategies were more aware of their environment and could integrate better awareness of their environment and decisions to make under various circumstances. The study advocated for more learners to undergo guidance and counseling to advance their problem solving skills. This study was carried out among university students and the current study seeks to establish if the finding would be the same when the respondents were secondary school students.

Problem solving skills is an important skill among learners due to the wide-ranging challenging learning environment (Cooper, Cox & Nammouz, 2019). It was evident that to enhance effectiveness of guidance and counseling services, among learners, there was need for schools to develop intervention strategies to enhance problem solving skills among student population. Further, Cooper, Cox and Nammouz (2019) noted that the learners' problem solving skills increased by over 10% after undergoing through all organized series of guidance and counseling. The study further noted that the level of performance by the stakeholders towards development of problem solving skills was below par and more was needed to enhance more learners' access intervention programmes in educational institutions. Learners who underwent the programmes evidenced higher capability to analyse their environment as well as assessing the repercussions of their actions to arrive at most plausible strategy.

In China, Gu, Zhu and Lin (2015) analysed how interventions assisted learners to develop problem solving skills. Educators invest in innovative interventions geared towards enhancing learner's ability to make decisions. To make a plausible decision, learners need to understand how to evaluate the scenario or challenge that they face, analyse all the possible strategies to counter the issue and make wise decisions. The wise decision will be one that will accrue most benefits to the learners as well as to

the society. To do this, educator's need to enhance the learner's decision paradigm. This is done through a series of interventions which individually and collaboratively develop the learner's schemas. This development of meta-cognitive process of critical thinking and problem solving skills was deemed to be an indicator of successful guidance and counseling process.

In explaining the role of various interventions on problem solving skills, Irvine (2015) noted that learners need to undergo interventions that would assist them in problem solving. The learning environment posed a greater challenge to learners in pursuing educational success. To deter learners from deviating from studying, the school administration must develop strategies to enhance the learners' problem solving skills. Activation of just in time strategies in the normal school routine assists learners to solve issues that arise in the course of learning. By implementing learner sessions where they discuss the challenges amongst themselves, the school assist learners develop their reasoning skills and perception of issues they face in learning. Learners should also be exposed to guidance and counseling sessions particularly on issues that are not common to school life such as parenting styles at home as well as home environment.

A study on conflict management by students in schools was carried by Mahvar, Farahani and Aryankhesal (2018) and established that learners who had undergone various interventions acquired a higher analytical capability to evaluate events and circumstances in their daily activities. This analysis assisted learners to comprehend the various consequences of their actions. Thus, these learners replay various action models in their brain and determine the action that will have less negative impact in their school. By replaying various models, these learners seem to have better problem

solving skills compared to their peers who had not undergone any form of intervention. Common interventions in schools include guidance and counseling, psychological meetings with leaders and peer counseling among others.

In Nigeria, Abdulmalik, Ani, Ajuwon and Omigbodun (2016) carried out a study on effectiveness of problem-solving interventions on learners. It was established that learner aggression started early in lower classes and teachers could easily identify learners with aggression issues. Therefore, it was possible for teachers to organise intervention measures to enhance learners' positive behaviour. Through group-based problem-solving interactions, the learners' showed significant reduction in their aggression. This was attributed to learners' acquisition of problem solving skills where learners could borrow from their group interactions and determine the best form of behaviour. The group based problem solving skills was rooted as one of the best strategies to assist learners to address aggression. The group based problem solving intervention was viewed as a psychological intervention for children with higher aggression levels.

In Rwanda, Atieno (2019) noted that learners in Rwandese faced many challenges which needed to be addressed in order for education to gain meaning to learners. Rwanda a nation that had faced one of the world's worst genocides, the Rwandese learners' psychological awareness required some interventions. To achieve this, educational institutions organised sessions for their learners to undergo various interventions. Accordingly, it was noted that learners who successfully underwent a series of psycho-social interventions developed advanced problem solving skills. The learners were able to identify and apply different strategies to solve their daily issues in school. Therefore, it was consequential for educational stakeholders to re-

emphasise the need for behavioural and psychological interventions required to enhance learner's achievement in school and also later in the workplace.

In Uganda, McAllen and McMullen (2017) analysed the effect of behaviour interventions among secondary school learners using a controlled cluster sample that was taken through various interventions and results compared against a control group. The analysis of covariance showed that the group that had undergone through the behaviour interventions had reduced chances of aggression and made correct decisions. This showed that the learners had developed problem solving skills and this was attributed to the various interventions they had been taken through. Should the class room teachers take learners through behaviour modification interventions and would this assist the learner to develop various schemas to apply in different scenarios to solve their issues?

A study by Gathua, Muthee, Murugami and Tekle (2015) analysed the strategies used by teachers to address learner's behavioural issues in Kenya. It was noted that the beginning point of any intervention strategy was to identify the learners to be taken through the behaviour modification strategies. The study noted that although the strategy used by teachers to identify learners to be taken through the various interventions, the learners who were successful developed high problem solving skills. Their reasoning through various issues was resoundingly higher compared to learners who had not undergone through any interventions.

According to Kinyua (2019) behaviour management was one of the greatest challenges facing teachers. Therefore, to enhance cohesion in school, there was need for learners to undergo behaviour modification strategies. These strategies need to be

developed by teachers depending on the behavioural issues they needed addressed among their learners. The study further identified various sources of behavioural issues among children. The study noted that majority of learners who underwent through guidance and counseling developed better problem solving capabilities. However, this study was carried out among learners with disabilities and the findings might not hold if the population consisted of a different sample of learners.

2.3.2 Brief Motivation Interventions and Enhancement of Decision Making Capability among Students

Schools provide learners with diverse opportunities to make invaluable decisions that impact on their latter's life. Boekaerts and Corno (2015) argued that the learning environment offered learners an opportunity to use their acquired skills and personalities to maximise on the available resources. To actively maximise the school resources, the learners need to develop skills that enhance their decision-making capability. Fortunately, most educational institutions not only provide the curriculum content but also endeavour to expose learners to various interventions to develop their behaviour and personality. To achieve this, teachers enhance the way learners' react to stressors by initiating learners through learner motivation activities such as guidance and counseling, career guidance, ethics lessons as well as social skills development programmes. All these interventions are aimed at enhancing the learners' psychological preparedness to handle stress factors in school and at home. By doing this, the learners manage to cope well within their learning and home environment and the overall effect was having an ethical learner with good character. This is the basis of developing the required citizens.

A study by Durlak, Weissberg, Dymnicki, Taylor and Schellinger (2011) on the impact of interventions on social emotional learning among children established that there was need for guidance and counseling teachers to understand the learners' personalities since it assisted teachers develop intervention strategies to assist learners with learning. This enhances the learners' perception and attitude towards schooling. Once the learner has been exposed to various intervention strategies, development of social and cognitive skills is enhanced leading to better analysis of various events and circumstances. This enhanced analysis coupled with the learner's personality enhanced decision making capability of learners. It was evident that learners who had undergone any intervention programme had clear mindsets and made plausible decisions compared to learners who had not undergone through any intervention programme.

Study done by Star, Chen, Taylor, Durkin, Dede and Chao (2014) analysed the role of intervention strategies on student outcome. The results indicated that application of new technology to determine intervention strategies were best suited for children. The study established that students who went through motivation intervention developed better decision making models that enhanced their understanding of Mathematical concepts. Through motivation intervention, learners interacted with various frameworks that when analysed gave rise to different decision models. These models enhanced learners overall academic performance.

Study done by Lazowaski and Huleman (2016) analysed motivation interventions in education. The study analysed over 70 published papers on effectiveness of intervention to learners. In summary, the empirical study noted that various interventions assist learners to develop resilience to adapt to new environments. The

study also showed that learners exposed to intervention strategies developed better models that were effective when it came to decision making in real life. Therefore, the study suggested that educational stakeholders must integrate motivation interventions in their daily routines.

Hagger and Chatzisarantis (2016) analysed the autonomous motivation strategies in education. By looking through the phases involved in decision making, the learners who had undergone through interventions had a higher scope of data that they collected to base their decisions. The learners who had undergone some motivation interventions had a wider scope of judging the alternatives available to them. The level of reasoning exhibited by learners was also higher compared to learners without any form of interventions. Ideally, Hagger and Chatzisarantis argued that schools should focus on providing their learners with motivation interventions since it allowed them to develop their scope of reasoning which translated to better decision making.

A study by Lam and Santos (2018) undertook on the impact of intervention strategies on decision making among college students. This quasi-experimental study among Malaysian students established that the nature and context on interventions strategies had significant impact on individual learners' decision making models. Students who underwent successful intervention programmes were seen to exhibit advanced knowledge of their environment. The level of analysis and arguments were also higher compared to other students. Therefore, it was felt that by exposing learners to motivation interventions, teachers increased the decision models used by learners to make daily decisions. This has the effect of having better decisions made by learners thus eliciting less teacher intervention.

2.3.3 Brief Motivation Interventions and Building of Self-Efficacy among Learners

Self-efficacy is the belief in one's personal capacity to successfully perform in one's area of specialty. A student's self-efficacy can be regarded as the ability of the student to perform to the best of their ability within an institutionalised setting. Self-efficacy views an activity that is difficult as doable. It is thus the adoption of "I can Do It" attitude among learners (Weinhardt, 2013). The study showed that majority of learners who had undergone intervention programme displayed strong self-efficacy. It was also evident that learners with high self-efficacy level dramatically increased their level of efficacy after undergoing through some intervention. The learners' sphere of achievement was largely increased when learners were taken through motivation intervention programme.

According to Griffith (2020), school counselors needed to integrate BMI in their daily routines with learners' engagement as a way of assisting learners increase self-efficacy. The study further observed that counselors assist students to turn needs into learning possibilities, turn difficulties into growth as well guiding students towards personal improvement. The interventions assist learners to focus away from their needs to focus on their abilities and incorporate encouragement into their daily routines. When learners are able to identify with changes, they motivate themselves to move forward towards achieving greater goals in life.

A study by Grenner, Johansson, Wijer and Sahlen (2019) analysed the effectiveness of intervention on self-efficacy among elementary students. The study used an 18 item self-efficacy questionnaire to collect data from the students. The study noted

that students who had undergone some interventions demonstrated strong self-efficacy. Data showed that for learners sampled before the interventions and after the interventions, their self-efficacy had tremendously increased. The performance of such learners showed great creativity on written essays as evidence of having developed higher creativity and thought system. In terms of the quality of the handwritings, learners who underwent the interventions showed greater text quality. The study concluded that learners who underwent some form of interventions in school greatly improved their thinking scope as well as possessed higher creativity compared to other learners. The level of performance of tasks for learners who underwent the interventions was also ranked higher in terms of quality and organisation. Therefore, Grenner, Johansson, Wijer and Sahlen concluded that the interventions improved the learners' self-efficacy in elementary schools.

A study by Akomolafe, Agunmakin and Fassoto (2013) analysed the role of intervention strategies on learners' self-efficacy. In this study, samples of 398 students were given self-administered questionnaires and multiple regression analysis used to analyse data. The study established that intervention strategies had a significant contribution to learners' self-efficacy and this translated to higher academic performance. The study recommended that teachers should strive to enhance the brief intervention strategies such as guidance and counseling since they were relevant in shaping a learner's perception of self. Motivation strategies also exposed learners to a wide berth of locus of controls they can use in the course of their schooling. This understanding of locus of control was relevant for learners since it allowed them to rethink through before making decisions that would affect their schooling.

A study by Adeyinka, Addedeji and Olufemi (2011) argued that when students are taken through behaviour modification counselling, their scope of reasoning and outlook at life is enhanced and made wider. The students no longer have a narrow perception and outlook at life, but they acquire a more universal outlook that puts into consideration the feeling of other people close to them. The students' self-image is boosted and since there are series of meetings with the counselor, the learners are able to be focused and shift their perception on life. In secondary school, the learners are at their prime and counseling assists them to regain self-confidence and have a positive self-image. This is attached to the learner's belief in the self to make viable decisions. This improves the learners' self-efficacy and overall is a learner who had high self-esteem.

A study was carried by Balami (2015) to analyse the relationship between self-efficacy and intervention strategies. The study adopted a descriptive study and sampled over 300 students enrolled in college. The study noted that the impact that motivation strategies have on learners is immense. The learner's perception of self-worth is exponentially improved and enhanced that the learner's inner believe in the self is highly enhanced. This allows the student to evaluate all their options regarding any circumstance and reach viable goals. The learners are able to set personal goals and personal plans to achieve their life's' objectives. Thus, it can be argued that the intervention strategies adopted by schools assist learners to regain their self-worth and this improves the level of self-efficacy.

2.3.4 Challenges in the Implementation of Brief Motivation Interventions in Schools.

According to Manghi et al, (2020) lack of finances to implement the school programmes is the single most major challenge that school face. The funding from the government is not adequate to assure financing of all school programmes. Due to this, principals sought assistance from the parents. However, due to government stringent control on the maximum amount that schools should collect from parents, majority of the school opt to do away with some programmes. In addressing discipline challenges in secondary schools, the role of teachers as providers of intervention measures cannot be undermined. However, with inadequate financing, the teachers do not undergo psychology training to assist them to handle learners' issues in a more professional manner. This means that most of the intervention strategies are carried out by teachers without formal training and thus does not address the psychological aspects of behavioural challenges facing learners. The study noted that the rate of positive behaviour change among learners was minimal since teachers did not have the psychological training on how to deal with learners.

According to Adewumi and Mosito (2019), one of the challenges facing teachers in provision of intervention programmes in schools was the heavy class workload allocated to teachers. The heavy workload overwhelmed teachers such that the teachers tend to overlook other school programmes for the greatest part of their appraisal involves the core subject teaching matter. The study advocated for more teachers to be employed to reduce individual teachers' workload. This would in turn see teachers more engaged in the non-teaching programmes in secondary schools.

The learning environment and the society in general have evolved over time. In secondary schools the concept of intervention strategies that seek to enhance learners' social-cognitive development are rare (Boitt, 2016). The educational systems in developing countries have not fully embraced the concept of brief intervention strategies. The intervention strategies are geared at addressing physical, emotional, social, vocational and academic difficulties that learners from various types of households and environments access education. Implementation of interventions strategies is therefore fragmented and partial.

According to Semali and Vumilia (2016), learners discipline in secondary school posed the greatest challenge towards achievement of academic excellence. To address this, it was established that schools needed to enhance the implementation of strategies to enhance learners' discipline. However, one of the greatest challenges that secondary schools faced in implementation of intervention measures was lack of professional personnel to guide the learners. Learners required the services of psychologists in order to fully undergo various intervention strategies required for social and cognitive changes. The normal classroom teachers were established to lack the professionalism to handle learners beyond the normal guidance and counseling sessions offered in schools. The study called for employment of professional behaviour psychologists to enhance school programmes that sought to enhance learner behaviour change.

A study by Abbo, Okello, Muhwezi, Akkelo and Ovuga (2016) noted that drug and substance abuse among learners was a common phenomena. The study noted that about a third of common drug and substance abusers were engaged in hard drugs and

therefore teachers had a multiple task of teaching as well as addressing substance abuse among learners. To do this, the teachers had to balance between the normal teaching work to guidance and counseling using multiple interventions. However, since teachers did not have psychology training, their efforts were limited to the units in psychology taught in colleges. The study established that teachers involved in guidance and counseling should be provided with additional training to improve their efficiency in counseling.

According to Kaluki (2019) that intervention strategies play a key role in enhancing learners' awareness of their environment. The intervention strategies assisted learners to modify their behaviour in order to fit in the society. Therefore, teachers played a key role in psychosocial development of learners. However, to implement their roles effectively, the teachers needed to be provided with the resources needed. These resources include rooms to attend to learners with issues, the books to improve their psychology skills and time to attend to the learners. However, all the three items had been down played and lacked in majority of schools. Despite government funding of education, there were no resources granted by the government towards this noble cause and schools strained to provide the most basic requirements to meet the need for guidance and counseling in schools.

2.4 Summary of Empirical Review and Theoretical Framework

The literature reviewed has shown that learners in secondary schools face the challenge of substance abuse. Therefore, schools have adopted various behavior modification strategies. The studies have also shown that brief intervention strategies assist learners to develop problem solving skills. However, much of research on BMI

and development of problem solving skills emanate from advanced and highly developed nations that have heavily invested in the school system. In Kenya, the education system is financed by government and the key votes do not sustain much of the school programmes. Research had also shown that BMI strategies have a positive effect on the decision making models of high scholars. However, it was evident that research on African learners has concentrated on other facets and not psychological aspects of the learner. The review has also shown that BMI strategies have an effect on the learner's self-efficacy. Unfortunately, much of the research has been conducted outside Kenya and this current study seeks to establish the situation as is in Kenyan education sector. This study therefore bridges the existing gap on BMI and the impact it has on Kenyan students. The Kenyan social cultural set up is also quite different compared to situations in Tanzania, Uganda or the rest of the world. This current study seeks to analyse the BMI in the context of Kenyan learner in public secondary schools.

2.5 Conceptual Framework

A conceptual framework is a diagrammatical representation that shows the interaction of the study variables. This is represented in Figure 1.

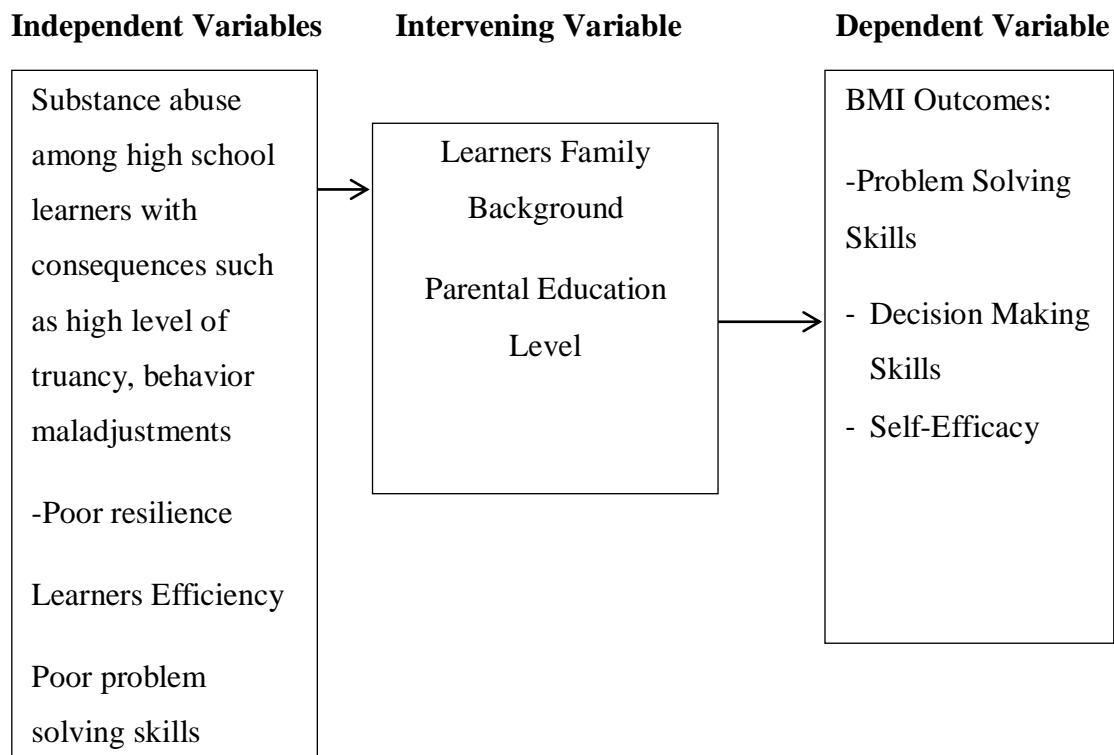


Figure 1: Conceptual Framework

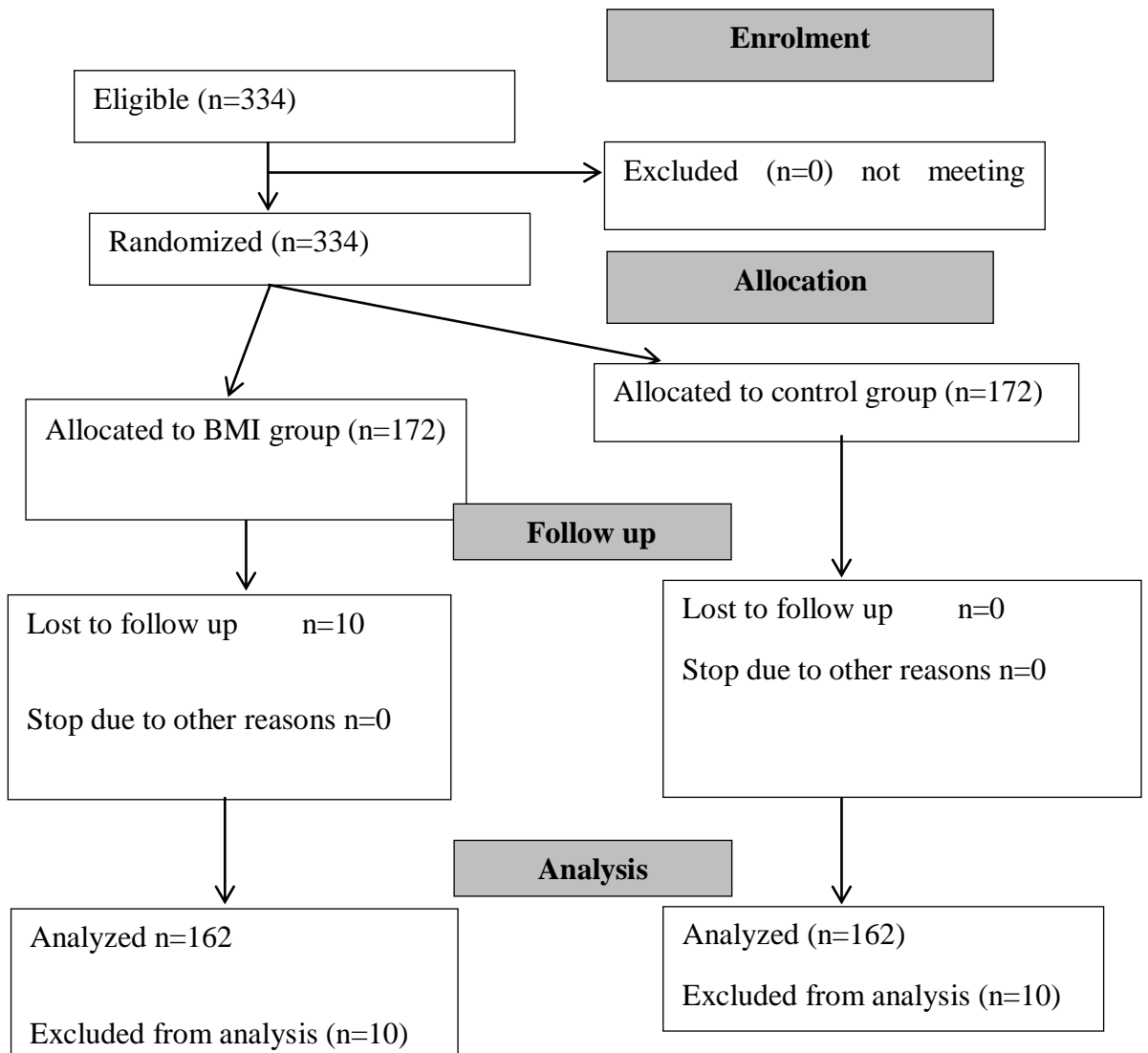


Figure 2: Randomization Diagram According to Consolidated Standard for Reporting Trials

The BMI strategies assist learners to develop their problem-solving skills. Learners face a myriad of challenges and they need to have higher problem-solving skills that

they would apply to solve their daily challenges. During the BMI meetings, learners are assisted to develop their ability to solve problems. The strategies involve assisting learners' to rethink through their challenges, focus on the cause of the issues at hand, and develop possible solutions to address the issue. In BMI meetings, learners also get assistance on how to develop their personality such as gaining self-confidence and internal motivation to perform tasks. This in turn assists the person to have higher levels of confidence on their abilities. The BMI assists learners to develop decision making skills while in school and as such develop to be better students and people in the society. BMI strategies also assist learners to progress their decision-making skills. Learners make correct and appropriate decisions at various stages ins school. BMI strategies also awaken the learners' self-efficacy skills needed to enhance their psychosocial life in school. All these skills assist learners to develop resilience.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This section dealt with the methodology that was used in carrying out the research. It described the research design, the location and target population, the sample size and the sampling techniques used the description of the instruments for data collection and data collection procedures. The final part described the data analysis procedures and ethical considerations in research.

3.2 Research Design

The study adopted a quasi-experimental design. This design was appropriate since it allowed for the collection of data from a control environment which provided adequate data to draw conclusions on the effectiveness of brief motivation intervention in building resilience against use of substance among students in secondary schools in Kiambu County, Kenya. Creswell and Creswell (2018) noted that an experimental design provided a quantitative or numeric description of trends, attitudes or opinions of a population by studying a sample of that population. In the current study, teachers input data on selected students with issues of substance abuse. The participants were taken through the intervention (BMI) which comprised six sessions and the guidance and counseling teachers' acted as BMI coaches and provided data on behavioral and attitudinal changes evidenced by the participants.

3.3 Study Variables

The study variables in this study were the problem-solving skills, decision-making skills, self-efficacy as well as learners' resilience.

Independent Variable

Substance abuse: It was the harmful use of psychoactive substance, including alcohol and illicit drugs among High School Learners.

Dependent Variables

The dependent variable in this study was student's resilience to use or abuse of psychoactive substances including alcohol and other illegal drugs. Resilience in this case was taken as the ability of a student to have better decision making skills, high level of problem solving skills and build resilience after undergoing a series of brief motivational interventions. Problem solving skills were measured from the student's ability to identify the problem, build a series of selectable solutions according to priority and choose the best alternative. Decision making skills were measured by analysis of the student's ability to draw a decision matrix after a series of interventions. Finally, the student's self-efficacy was assessed on the learner's ability to have self-belief in own ability to overcome difficult situations.

Intervening variables

These were variables identified to have a positive influence on the learners and they include learner's family background which could provide positive support to learners and overcame DSA influence .Parental educational background provided support for

learners involved in DSA and thus may not be affected as learners from households whose parents have low educational background.

3.4 Site of the Study

The study was carried out in secondary schools within Kiambu County, Kenya. Kiambu is a highly cosmopolitan county and therefore provides a chance for diverse students participating in the study. Njuguna, Koome and Gesimba (2021) indicated that Kiambu County is one of the counties with a high prevalence of drug and substance abuse in Kenya. Alcohol abuse was pointed out as a major impediment facing students although other forms of DSA were also cited as having been accessible to underage children in the county.

3.5 Target Population

The study population consisted of all students undergoing guidance and counseling in the secondary schools majorly on issues of drug and substance abuse. According to the information at the County Education Office, these were approximately 1, 717 students in public secondary school students in Kiambu County (County Education Office, 2020).

3.6 Sample Size and Sampling Procedures

The study adopted Gay, Mills and Arasian's (2003) principle, which denotes that a sample of 5% to 20% of the population is acceptable in social sciences research. Thus, the sample frame was 344 (20%) students in the public secondary schools. Purposeful sampling method was used to identify the students who participated in the study. This method was selected since it gave a chance for any respondent who had undergone BMI to have a chance of being selected to provide data for compiling this report, at

the same time it allowed for elimination of students who had not undergone BMI from providing data for the study. Guidance and counseling teachers purposefully select students who participated in this study since they were responsible for offering guidance and counseling to learners. Therefore, the teachers identified students who had successfully undergone through brief motivation interventions in their schools.

3.7 Research Instruments

3.7.1 Research Questionnaire

The main tool for data collection was the self-prepared questionnaire. This questionnaire was developed by the researcher following the BMI criterion given by SAMHSA (1999). The questionnaire was adapted from SAMHSA and modified by the researcher in order to collect data from the participants who had undergone the BMI intervention and those from the control group. The questionnaire had open ended and closed questions in order to provide an all-round data useful in assessing the effectiveness of brief motivation intervention on building resilience against substance use among students in secondary schools in Kiambu County, Kenya. The questionnaire required the respondents to indicate on a Likert scale their responses where low scores below 3 represented low levels of resilience and scores above 4.3 was considered high resilience.

3.7.2 BMI Intervention Tool

A BMI intervention protocol was adopted from Brief Interventions and Brief Therapies for Substance Abuse (SAMHSA, 1999). The intervention provided for guidance and counseling teachers to be trained on BMI and data capturing to collect

data on learners' resilience to DSA. This intervention was adapted accordingly to form a series of questions areas that the coaches (who were the guidance and counseling teachers) would follow and indicate the responses provided. The intervention was provided after participants had undergone through several BMI sessions. This intervention presented an even stimulus to the respondents and provided a good framework to collect data on the area under study.

The participants undertook a minimum of five BMI sessions with their guidance and counseling teachers. Session one included providing the participant with a problem and analyzed the decision models developed. Session 2 was about change and setting goals. During the third session, the participant evaluated the pros and cons of DSA and in the fourth session was all about providing the participant with a problem and analysis of decision models developed. In the fifth session, the counselor and the participant went through the decision models and let the participant open on each alternative, reason behind the alternative and repercussions associated. The final session was about debriefing on how the counselor would incorporate the participant into a social media group where the parties would keep in contact for future sessions where need be. During each session, the guidance and counselling teacher recorded on the tools provided, the thoughts shared with the participant as well as monitored the participants' progress.

3.8 Reliability and Validity

The research instruments was tested for validity and reliability

3.8.1 Reliability

Test-retest method was used to test the reliability of the research instrument. Pre-testing the questionnaire was important because deficiencies in questionnaires were detected before the actual study was conducted. Once the piloted questionnaires were collected, a reliability coefficient was calculated. The correlation coefficient calculated was accepted since it was established to be 0.717 and it was greater than 0.7 and therefore, the instrument was deemed reliable according to Mugenda and Mugenda (2003).

3.8.2 Validity

After piloting the research instruments, the researcher estimated the degree of coherence of the responses for each instrument. Validity was established by expert judgment and thus the questionnaires were constructed in close consultation with the university supervisors. The tools were also presented to a number of colleagues pursuing Master studies at the university and discussion of probable data and expansion of type of data that was collected and the same was reviewed against the study questions. After several reviews, the final tool was developed and the researcher liaised with the university lecturers to assist in ensuring the validity of the research instruments.

3.9 Pilot Study

A pilot study was conducted in three schools in Kiambu County, Kenya, one month before the actual study in one of the schools with a clear guidance and counseling structure. This school was not part of the final study. The purpose of conducting the pilot study was to check on the suitability and the clarity of the questions on the instrument design, relevance of the information being sought, the language used and the content validity of the instruments from the responses that were given and the reliability of the research instrument. The researcher visited three schools and trained the guidance and counseling teachers on how to roll out the BMI intervention. The teachers were also provided with the questionnaire to give before and after the BMI sessions. The 10 teachers and collected the questionnaires immediately after they were filled in. The questionnaires were re-issued to the same respondents after one week and the responses compared. The data was fed into SPSS (Version 24) computer program and a coefficient of correlation computed. The interventions were deemed reliable since they produced a coefficient of 0.717 which was higher than 0.70 recommended by Mugenda and Mugenda (2003) for a tool to be considered reliable.

3.10 Data Collection Procedures

After approval from the university, the researcher applied for a research permit from National Commission for Science, Technology and Innovation (NACOSTI) and then approach the Sub-County Director of Education for a courtesy call before data collection. After this, the researcher booked appointments with the principals of sampled schools to plan how to administer the questionnaires and carry out the interviews. On the appointed day of data collection, the researcher reported to the

principals' office for assistance in identifying teachers who participated in the study. The researcher explained the nature and content of the study, then the teachers were requested to participate in the study.

The guidance and counseling teachers collected data from the subjects before guidance and counseling sessions. The learners were then classified into two, the control sample and the test sample. The test subjects were taken through the basic guidance and counseling sessions offered in schools. Data was collected from the control subjects after the guidance and counseling. The learners test subjects were exposed to at least five series of BMI sessions after which they were given a period of at least one home holiday before the teachers exposed them to scenarios that would determine development of their problem solving skills and decision making skills to measure the level of resilience built by BMI sessions. The teachers took the test subjects through six BMI sessions and collected data after the sessions.

3.11 Data Analysis

Data analysis involved categorization, coding and summarizing of data in relation to the research questions. Descriptive statistics was used to present the results. The researcher used Statistical Package for Social Sciences (SPSS) Version 24 computer software to analyze the data obtained. Descriptive statistics such as percentages and means was used to convey the essential characteristics of the data. Data was presented using frequency distribution tables. Qualitative data was reviewed and compiled and summarized. From the summarized data, inferences were drawn. Once the findings were established, conclusions and recommendations were made.

3.12 Data Management and Ethical Considerations

Ethical considerations were observed. The purpose of the study was explained to the respondents before requesting them to participate in the study. The respondents were assured of confidentiality after which they were given enough time to fill in the questionnaires. The respondents were requested not to indicate their names on the research instruments and they were assured that their responses would be treated with utmost confidentiality. The researcher ensured that respondent's rights were not violated and that the information gathered was only for academic purposes. The respondents were assumed to have expressly given authority to the researcher by voluntarily taking part in the study. After the study, the participants will be organized into a follow up group and each teacher carryout follow ups on their progress. The participants will undertake a minimum of five BMI sessions with their guidance and counselling teachers. During each session, the teacher will record on the tools provided, the thoughts shared with the participants and monitor the participant's progress. After the sessions, the participants will be debriefed in order to be integrated into the normal guidance and counselling sessions and other school activities. The debriefing will involve reviewing the participants consent to participate in the study as well as making them aware of the nature and use of the data provided during the sessions.

CHAPTER FOUR

DATA ANALYSIS AND DISCUSSIONS

4.1 Introduction

This section lays out the analysed data, discussions and the conclusions. The data is discussed according to the study objectives which were to; assess the effectiveness Brief Motivation Interventions on increasing problem solving skills among students in secondary schools, examine the effectiveness of Brief Motivation Interventions on the strengthening decision making skills of students in secondary schools, assess the effectiveness of BMI strategy on self-efficacy building on students in secondary schools and to establish the challenges faced by schools in implementation of BMI in secondary schools in Kiambu County.

4.2 Response Rate

The study sought to analyse the rate of response from the projected number of set subjects. This data is summarized in Table 4.1 Below.

Table 4.1: Response rate

Total Target Cases	Responded Cases	Percentage
172	162	94.19

Data showed that of the targeted 172 students, the study managed to reach out to 162 representing a 94.19% response rate. This response rate was adequate for the study since Mugenda and Mugenda (2014) argued that a response rate of over 70% is adequate for the study.

4.2.1 Background Data on Respondents

In order to understand the study participants, it was necessary to collect background data which forms a critical role in understanding the type of participants who took part in the study. This data included the number of rolls of cannabis taken by participants on a weekly basis, the participant's guilty conscience before underground BMI as well as number of eye openers taken. This data was important since it went a long way to provide the level of drug and substance abuse among the study participants. This data also provided the reader with a basis to gauge the level of reliability to place on the participants' responses.

The study sought to determine the number of rolls of cannabis consumed by the student's respondents. This was important since it would provide a basis to understand the level of indulgence in DSA among the student respondent. This data is summarized in Table 4.2.

Table 4.2: Number of Rolls of Cannabis Consumed by Student Respondents

No of Rolls	Frequency	Percent	Valid Percent	Cumulative Percent
none	18	11.1	11.4	11.4
1-4	11	6.8	7.0	18.4
Valid 4-10	30	18.5	19.0	37.3
Over 10	99	61.1	62.7	100.0
Total	158	97.5	100.0	
Missing System	4	2.5		
Total	162	100.0		

Data showed that only 11.1% of the students who participated in the study had not consume rolls of cannabis in school in the last few weeks whereas 88.9% indicated to have consumed drugs prior to participation in the study. The study shows that majority of the students who participated in the study could be relied on to provide

invaluable data on BMI implementation and effectiveness in fighting DSA in secondary schools in Kenya. The study findings are consistent with Ondigo, Birech and Gakuru (2019) that incidences of drug and substance abuse were very high among Kenyan students. The authors further noted that cannabis was among the most abused substances in Kenyan educational institutions.

Table 4.3 Number of Alcoholic Drinks Consumed by Student Respondents in a Month

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	None	20	12.3	12.5	12.5
	1-5	22	13.6	13.8	26.3
	5-10	8	4.9	5.0	31.3
	Over 10	110	67.9	68.8	100.0
	Total	160	98.8	100.0	
Missing	System	2	1.2		
Total		162	100.0		

Data analysed showed that majority (67.9%) of the students consumed more than 10 alcoholic drinks a month which is an average of two drinks in a week. A considerable number of students (13.6%) consumed at least five drinks in a month while another 4.9% consumed less than 10 alcoholic drinks per month. Data showed that drinking was a common indulgence among secondary school students in the region. The findings are consistent with King'endo (2010) that drug and substance abuse was high in Kenyan secondary schools. The study noted that over 30% of Kenyan secondary students were fond of using alcohol.

4.2.2 BMI and Development of Problem Solving Skills among Students

The first objective of this study was to assess the effectiveness Brief Motivation Interventions on increasing problem solving skills among students in secondary schools. A series of statements were issued to students where the students selected the number of rolls of cannabis/drinks taken in a month as well as a Yes /No response on eye opener. Data was analysed in form of means and standard deviations by aid of SPSS (Ver. 24) computer programme and the responses are summarized in Table 4.4.

Table 4.4: Status of Substance Abuse among High School Students

Statement	Pre-BMI Scores		Post BMI Scores	
	Mean	Std. Deviation	Mean	Std. Deviation
No. of rolls of cannabis consumed weekly	3.7	2	1.6	1.2
No. of drinks in a month	2.5	1.2	1.5	0.7
Do you feel guilty after drug session	2.3	1.2	1.2	0.4
Do you have an eye opener (drink/smoke first thing on waking up)	2.2	0.9	1.8	0.4

Data in Table 4.4 shows that there was substantial change in decision making among the learners who participated in this study. Data shows that there was a significant reduction between the number of rolls of cannabis taken before counseling and after counseling with a mean of 3.7 before counseling and 1.6 after counseling. Data also showed that most students who underwent guidance and counseling significantly reduced the number of rolls of cannabis consumed weekly. Data shows that the students who underwent BMI understood that they faced a problem on substance abuse and after undergoing BMI, they had a significant change in their problem solving faculties since they made deliberate choice to reduce their uptake of drugs. This shows that BMI was very vital tools for helping learners reduce drug and substance use. There was a significant reduction in the number of drinks undertaken by students after guidance and counseling sessions from a mean of 2.5 to 1.5 after counseling. This trend is replicated across the students who undertook eye opener from a mean of 2.2 to 1.8. The data showed that guidance and counseling teachers who opt to apply BMI assist learners to move towards stopping DSA in secondary schools. The findings are consistent with Vindrine, Reitzel, Figueroa and Valesquez (2011) that intervention strategies were effective in development of problem solving skills among adult smokers who quit and experience relapses in the process of stopping substances abuse. After the sessions, the learners were capable of following a definite problem solving process to arrive at amicable conclusions.

4.2.3 BMI and Decision Making Capabilities among Students

The second objective of this study was to examine the effectiveness of Brief Motivation Interventions on the decision making capability of students in secondary

schools in Kiambu County. A series of statements were issued to participants who underwent BMI and then analysed which involved establishing the means and standard deviations from the scores given by the respondents. This data was input into the SPSS (Version 24) computer programme and using descriptive statistics, means and standard deviations were computed and presented in Table 4.5.

Table 4.5: BMI and Decision Making Capabilities among Students

Statement	Pre-BMI Scores		Post BMI Scores		Control Scores	
	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation
Priority level of My friends whom we indulge together	3.5	0.9	1.5	0.6	3.0	1.1
The opinion of my peers whom we indulge together are	2.9	1.1	1.5	0.6	3.2	1.0
Allocation of time towards academics is	2.6	1.2	3.9	0.5	3.1	1.1
In making any decision, my current needs are	4.4	0.8	2.0	1.0	2.5	1.3
I am prepared to fully quite DSA	3.0	1.1	3.4	1.0	4.6	0.7
My academic performance is	2.8	1.2	2.1	1.1	2.6	1.0

Data provided showed a mean of 3.5 (SD=0.9) for students who underwent BMI and a mean of 3.0 (SD=1.1) for control experiment on the level of priority the students held of their peers before guidance and counseling. However, data showed a mean of 1.5 (SD=0.6) against control scores of 3.2 (SD=1.0) to the level of priority placed on peers after guidance and counseling. The data showed that once the students underwent guidance and counseling, the level of priority placed on friends reduced. Data presented also showed a mean of 2.9 (SD=1.1) to the level of priority on peer opinions. After undergoing guidance and counseling, the mean dropped to 1.5 (SD=0.6) for students under BMI while the control posted a mean of 3.1 (SD=1.1). This showed that implementation of BMI under school guidance and counseling assisted learners to achieve higher decision making ideals. The study found BMI implementation in secondary schools to improve the students' decision-making capabilities. BMI has enabled learners to improve their scope of reasoning and making deductions based on their present and future requirements.

Analysis of data showed a low mean of 2.6 (SD=1.2) on the level of priority the students put in their studies. After guidance and counseling, the level of priority that students put in their studies increased to 3.9 (SD=0.5). This showed that after undergoing guidance and counseling, the students were more focused on their studies. Before counseling, the students posted a mean of 4.4 (SD=0.8) priority level basing their decisions on their immediate current needs. However, after undergoing guidance and counseling, a mean of 2.0 (SD=1.0) showed improvement on the students decision making triad. The standard deviation showed that the data was sparsely spread between high Priority and least priority. The study concluded that teachers

who applied BMI in guidance and counseling assisted learners to enhance their decision making capabilities.

Analysis of data showed a mean of 2.8 (SD=1.2) on the statement regarding students view on the priority of their academic performance. After undergoing guidance and counseling, the mean dropped to 2.2 (SD=1.1) against control experiment mean of 2.8 (SD=1.0) which showed that after BMI implementation. It was noted that there was an increase in the number of learners who viewed their academic performance as a high priority although a significant number did not hold their academic performance as a priority. The study concluded that after undergoing series of guidance and counseling, a significant number of learners improved their decision making skills. This included decisions on the role of peers, capacity to improve on their academics performance among others. The findings concur with Lam and Santos (2018) findings that students who underwent successful intervention programmes exhibited higher degree and comprehension of their surroundings. The authors further claimed that students who successfully underwent guidance and counseling showed a higher level of analysis and ability.

Hagger and Chatzisarantis (2016) posited that schools should primarily focus their attention on providing their learners with BMI since it assisted in the development of learner's scope of reasoning which directly had a positive impact on learner's decision making process. Lazowaski and Huleman (2016) noted that learners who were exposed to BMI showed improvements in their decision making models and this generated into better decision making among learners. The sentiments were also posited by Star, Chen, Taylor, Durkin, Dede and Chao (2014).Durlak, Weissberg, Dymnicki, Taylor and Schellinger (2011) noted that learners who were exposed to

various intervention strategies, development of social and cognitive skills is enhanced leading to better analysis of various events and circumstances. This was through enhancement of clear mindsets when making decisions. Therefore, it can be concluded that by exposing learners to BMI, teachers increased the decision making models used by learners in making daily decisions resulting into making better decisions.

4.2.4 BMI and Students Self-Efficacy

The third objective of the study was to assess the effectiveness of BMI strategy on self-efficacy building on students in secondary schools in secondary schools in Kiambu County. Statements were issued to the respondents where the responses ranged from where, 5=strongly agree, 4=agree, 3=I do not know, 2=disagree and 1=strongly disagree and analysed data is presented in Table 4.6.

Table 4.6: BMI and Student Self Efficacy

Statement	Pre-BMI Scores		Post- BMI Scores		Control Scores	
	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation
I have hard time abstaining from substance abuse after guidance and counseling sessions	2.4	1.8	3.2	0.5	1.3	1.3
I do not take long for me to recover from substance abuse after guidance and counseling sessions	2.1	1.5	3.6	0.7	2.6	1
It is hard for me to snap back from substance abuse after guidance and counselling sessions	2.5	1.7	1.6	0.7	2.8	1.5

I usually come through substance abuse with little trouble	2.5	1.7	3.2	3.4	2.5	1.5
I tend to take a long time to get over substance abuse	2.2	1.6	4.1	0.4	1.8	1.3
I have tried to cut down on substance abuse	1.9	1.4	4.7	0.6	2	0.9
I feel guilty after engaging in drug and substance abuse	2	1.4	3.8	0.8	3.6	1.1

Prior to undergoing BMI, analysis of data showed a mean of 2.4 (SD=1.8) for the students who underwent BMI and mean of 1.3 (SD=1.3) for control elements to the statement that the student found it difficult abstaining from DSA. However, after undergoing BMI, a mean of 3.2 (SD=0.5) was posted that the student's ability to withstand pressure to revert back to DSA after undergoing G&C sessions. This clearly showed that BMI was instrumental in assisting students overcome DSA and indeed improved student's resilience. The findings concur with Cooper, Cox and Nammouz (2019) that BMI's goal was to improve the individual's resilience levels. The brief motivation intervention strategies assists to build the learners problem solving dichotomy by assisting learners to develop decision making models, analyse all possible repercussions of their actions and develop well informed choices in life.

Analysis of data based on the statement that the student did not take long to snap back to DSA posted a mean of 1.6 (SD=0.7) after undergoing BMI while the control experiment showed a mean of 2.5 (SD=1.5). This clearly showed that student who underwent BMI overcame DSA related challenges better. This showed that BMI played a key role in assisting learners overcome the challenge of reverting back to

DSA while schooling. The study finds that BMI was instrumental in enhancing student resilience in secondary schools. The findings concurs with Vindrine, Reitzel, Figueroa and Valesquez (2011) that intervention strategies were effective in building up resilience among rehabilitated substance abusers including enabling them to overcome DSA relapses in the process stopping substances abuse.

After BMI, individuals are capable of following a well-defined decision-making dichotomy and problem solving process to arrive at amicable conclusions. Gu, Zhu and Lin (2015) established that BMI assisted individuals to understand how to evaluate the scenario or challenge that they face, analyse all the possible strategies to counter the issue and make wise decisions. Further, Irvine (2015) noted that BMI structured learner sessions assisted the learners to underscore and understand their challenges and this was instrumental in development of individuals reasoning skills and perception of issues in life.

4.2.5 BMI and Student Resilience

The study sought to underscore the effect of BMI on building secondary school students resilience in Kiambu County, Kenya. The respondents were issued with a series of statements where, 5=strongly agree, 4=agree, 3=I do not know, 2=disagree and 1=strongly disagree. Data was analysed using descriptive statistics and means and standard deviations are summarized in Table 4.7.

Table 4.7: BMI and Students Resilience

Statement	Pre-BMI scores		Post BMI scores		Control Scores	
	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation

I am able to adapt to change.	1.9	1.1	3	1.2	1.8	0.9
I close and secure relationships.	1.3	0.6	2.9	1.4	1.0	0.3
Sometimes I feel that fate/God can help me.	1.8	0.7	4.5	1.1	1.6	0.6
I can deal with whatever comes my way.	1.7	0.9	3.3	1.6	1.7	1.0
My past success gives me confidence for a new challenge.	2.4	1.5	3.9	1.5	1.5	0.5
I can see the humorous side of things.	1.6	0.6	4.4	1	1.6	0.7
Coping with stress strengthens me.	1	0.2	4.5	0.9	1.1	0.3
I tend to bounce back after illness/hardship.	1.2	0.4	3.3	1.4	1.2	0.5
I know that things happen for a reason.	1.5	0.7	4.8	0.4	1.6	0.9
Best effort no matter what does not help.	1.1	0.3	3.9	0.4	1.1	0.3
I can achieve my goals.	1.3	0.6	4	0.3	1.4	0.8
When things look hopeless, I do not give up.	2.2	0.5	4	0.9	2.1	0.6
I know where to turn for help.	1.7	0.7	4.1	1.1	1.7	0.7
When under pressure, I focus and think clearly.	1.4	0.5	4.4	0.8	1.4	0.5
I prefer to take the lead in problem solving.	1.7	0.6	4.5	0.9	1.3	0.5
I am not easily discouraged by failure.	1.2	0.5	4	1	1.0	0.1
I think of myself as a strong person.	1.3	0.4	4.3	1	1.2	0.4
I make unpopular/difficult decisions.	2.1	0.5	4.5	0.9	2.1	0.5
I can handle unpleasant feelings.	1.9	0.7	3.8	4.3	1.8	0.8
I have to act on a hunch/feeling.	1.5	0.5	4.6	0.7	1.4	0.5
I have a strong sense of purpose.	1.9	0.8	4.7	0.8	2.2	0.8

I am in control of my life.	1.3	0.6	4.4	0.8	1.8	0.8
I like challenges.	1.1	0.3	4.1	0.2	1.1	0.5
I work to attain my goals.	2.2	0.5	4.2	0.7	2.1	0.6
I take pride in my achievements.	2	0.7	4	0.9	1.8	0.7
Summary Average	1.6	0.6	4.1	1.1	1.6	0.6

Analysis of data showed a mean of 1.9 (SD=1.1) before BMI to the statement that the student is able to adapt to change. After undergoing a series of BMI, a mean of 3.0 (SD=1.2) was achieved while the control yielded mean of 1.8 (SD=0.9). This demonstrated that BMI assisted the students to cope well with changes. The study established that integration of BMI in guidance and counseling assisted learners to cope with changes happening around them either in school or at home.

The study sought to establish how BMI assisted learners in the maintenance of social relations. Before the learners underwent BMI, a mean of 1.3 (SD=0.6) was recorded. After a series of BMI interventions, a mean of 2.9 (SD=1.2) was achieved while control yielded a mean of 1.4 (SD=0.3). This was indicative that BMI assisted learners to maintain social relations which are an important part in the learners social and education life. Therefore, it can be concluded that BMI integration to guidance and counseling assisted learners after undergoing through BMI sessions as majority of learners were able to maintain their social relations. This means that learners who underwent BMI were more stable and settled. When faced with a statement on Gods/religious deity role in their life, a mean of 1.8 (SD=0.7) was recorded before BMI, control yielded a mean of 2.3 (SD=1.2) while BMI scores were mean of 2.9

(SD=4.5). In summary a mean of 1.6 (SD=0.6) was recorded for statements on student resilience before the learners underwent through BMI interventions. After a series of BMI interventions, a mean of 4.1 (SD=1.1) meaning that majority of the learners who underwent through BMI achieved greater resilience due to the improvement of the mean. The control summary showed a mean of 1.6 (SD=0.6). The study established that BMI was an effective tool in enhancing learner's resilience in secondary schools in Kenya.

Lazowaski and Huleman (2016) noted that BMI interventions assisted learners to develop resilience through students adapting to new environments. BMI exposed learners to better thinking models that were more effective in decision making, problem solving as well as improving their scope of alternatives. The study suggested that educational stakeholders must integrate motivation interventions in their daily routines. Griffith (2020) noted that school counselors needed to integrate BMI in their daily routines with learners' engagement as a way of assisting learners increase self-efficacy. The study further observed that counselors assist students to turn student's needs into positive learning possibilities, turn difficulties into growth as well guiding students towards personal improvement. The interventions assist learners to focus away from their needs to focus on their abilities and incorporate encouragement into their daily routines. When learners are able to identify with changes, they motivate themselves to move forward towards achieving greater goals in life.

4.2.6 Challenges Facing Implementation of BMI in Kenyan Secondary Schools

The fourth objective of this study was to assess the challenges facing the implementation of BMI in Kenyan secondary schools. A series of statements were

issued to the effect of BMI strategy on self-efficacy building the student's resilience in Kiambu County. A series of statements were issued whose intention was to assess the challenges teachers offering guidance and counseling faced in secondary schools in Kenya and the responses are summarized in Table 4.8.

Table 4.8: Challenges Facing Implementation of BMI in Secondary Schools

Statement	N	Minimum	Maximum	Mean	Std. Deviation
Guidance and counseling teachers are dependent on their experience not training to handle student affairs.	7	1.0	5.0	3.9	1.4
The school has adequate guidance and counseling facilities (rooms, videos, books) to assist guidance and counseling teachers.	7	1.0	5.0	1.3	0.5
The placement / location of the guidance and counseling room in very appropriate for learners to access the services in private.	7	1.0	2.0	1.7	0.5
The teachers providing guidance and counseling in the school are adequate for the student population.	7	1.0	2.0	1.3	0.5
The time allocated for guidance and counseling is adequate for the student population.	7	1.0	3.0	1.6	1.0
Majority of students seek guidance and counseling first before mandatory referral by the school authorities.	7	1.0	3.0	1.6	0.8

Data in Table 4.8 showed a mean of 3.9 (SD=1.4) showing that majority of the teachers agreed with the statement that guidance and counseling teachers serving in secondary schools depend on their experience in guidance and counseling and not training. The standard deviation showed that there were some teachers who strongly disagreed with the statement showing that some guidance and counseling teachers had some form of background training in the field of counseling.

The findings concur with Abbo, Okello, Muhwezi, Akkelo and Ovuga (2016) noted that majority of teachers providing guidance and counseling in schools are not trained in psychology or in guidance and counseling fields. It was noted that the school administration selected the most experienced teachers and those with “motherly” nature to provide this core service to learners. The study called for integration of in-service training for the guidance and counseling teachers in schools to make counseling more enhanced and effective in line with the dynamics of the current societal needs of students.

Semali and Vumilia (2016) further noted that lack of qualified guidance and counseling professional in learning institutions hampered service delivery to learners as some of the guidance and counseling needs of learners’ required professional counselors.

Analysis of data showed a mean of 1.3 (SD=0.5) to the statement on adequacy of guidance and counseling rooms to handle the guidance and counseling needs of learners. This showed that majority of the guidance and counseling teachers strongly disagreed with the statement thus it was possible that there was a shortage of facilities needed to offer guidance and counseling services to learners. The study finds that the facilities in secondary schools were not adequate to cater for the guidance and counseling needs of learners.

The findings support observations made in Boitt (2016) that educational facilities in developing nations do not cater for guidance and counseling as a strategic way of handling learners issues and amicably providing solutions to dynamic learning environment. Inadequacy of rooms compounds the challenges facing guidance and

counseling since there is need for the counselor and the subject to have privacy in order to provide a conducive environment to the students to outpour their concerns and issues.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary of the Findings

5.1.1 BMI and Problem Solving Skills

When the students were asked on the number of rolls of cannabis they took weekly, a mean of 3.7 was established before counseling and 1.6 after counseling. This provided the evidence that BMI interventions assisted the learners to make wise decisions on DSA. There was a significant drop in the number of drinks/rolls of cannabis taken which was indicative of improvement towards ceasing DSA. Data showed that the students who underwent BMI understood that they faced a problem on substance abuse and after undergoing BMI, they had a significant change in their problem solving faculties since they made deliberate choices to reduce their drug use.

5.1.2 BMI and Decision Making among Students

Analysis of data posted a shift of the mean from 3.5 to 1.5 which was indicative of the fact that the level of priority student held on their peers greatly reduced after BMI. A shift of the mean from 2.9 to 1.5 on the level of priority learners had on the opinions from their peers about themselves showed some form of independence from peer opinions. This improved the decision making skills greatly as a student could make generate a wider decision scope compared to before exposure to BMI. A shift from a mean of 2.6 to 3.9 on the level of priority learners placed on their studies showed a

greater appreciation was put in students study compared to before BMI took place. Thus, after BMI the students were more focused in their studies compared to prior BMI period.

5.1.3 BMI and Student Self Efficacy

After undergoing BMI, the students agreed that they were able to abstain from DSA since the mean improved from 2.4 to 3.2. This was evident that BMI assisted the learners to increase their levels of efficacy. After undergoing BMI, the learners were able to avoid snap backs into DSA with decrease in the mean from 2.5 to 1.6 this was evidence that BMI assisted learners self-efficacy needs.

5.1.4 BMI and Student Resilience

Analysis showed that there was an increase in the mean level from 1.9 to 3.0 on learners' ability to cope with changes before BMI and after BMI respectively. This showed that prior to BMI, majority of students were not prepared to handle changes in their lives. After a series of BMI, majority of learners agreed that they were able to handle change. In terms of maintaining social relations, a mean of 1.3 was recorded before exposure to BMI which indicated that students disagreed with the statement that they could maintain social relations but after BMI a mean of 2.9 was posted thus showing improvement in maintenance of social relations among students. Overall, a mean of 1.6 was recorded on learners resilience prior to BMI and after a series of sessions the mean improved to 4.1. This showed that BMI was instrumental in enhancing learners resilience in secondary schools.

5.1.5 Challenges Facing Implementation of BMI in Kenyan Secondary Schools

Data established that majority of guidance and counseling teachers in secondary schools did not have any background training on guidance and counseling. It was also evident with a mean of 1.3 that the rooms and other facilities for handling guidance and counseling in secondary schools were inadequate. It also emerged that guidance and counseling teachers in secondary schools were not commensurate to the student population. A mean of 1.3 that showed high level of disparity between student population and guidance and counseling teachers in the secondary schools.

5.2 Conclusions

Based on the findings, the study concludes that students who went through BMI were able to develop better problem solving skills compared to prior to the exposure to BMI. The students reduced their uptake of drugs and with continued exposure to BMI, a higher rate of quality problem solving techniques was established.

The study also concluded that the learners exposed to BMI were able to get their priorities right. They made choices concerning their study time, social relation as well as have higher self-esteem that enabled them to treat the opinions from peers lowly. Thus students who underwent BMI also had a wider decision making models.

Another conclusion was that learners who were exposed to BMI were capable of abstaining from DSA and experienced low rate of snap backs. The student's self-efficacy levels improved since they were able to stop substance abuse albeit reduce rate of consumption. After undergoing BMI, the learners were able to avoid snap backs into DSA with decrease in the mean from 2.5 to 1.6 this was evidence that BMI assisted learners self-efficacy needs. Prior to exposure to BMI, majority of learners

were not prepared to handle changes in their lives. After a series of BMI, majority of learners agreed that they were able to handle change. After a series of BMI interventions, majority of learners recorded improvement in maintenance of social relations. Exposure to BMI was instrumental in enhancing learners' resilience in secondary schools.

Finally, it was established that a shortage of trained guidance and counseling teachers existed in secondary school in Kenya as majority of teachers depended on their experience to handle DSA cases not any form of training. There was also recorded shortage of guidance and counseling facilities in terms of space, reading materials among other facilities and this adversely affected delivery of guidance and counseling in secondary schools.

5.3 Recommendations

Based on the conclusions, the study recommends;

1. The guidance and counseling departments in secondary schools should enhance BMI strategies in addressing DSA in secondary schools to boost problem solving skills among secondary school learners.
2. The school administration should ensure that guidance and counseling is provided to all students in secondary schools to enhance their decision making skills. This will assist learners make quality decisions on their school life and after school life.
3. The Ministry should ensure that guidance and counseling teachers are given in-service training to enhance their roles in guidance and counseling and use

of BMI to effectively develop an independent right thinking learners for the new century.

4. The ministry of Education should provide funds to enhance effectiveness of guidance and counseling departments through construction of new rooms and provision of guidance and counseling materials in Kenyan Secondary schools.

5.4 Areas for Further Study

It is suggested that a research on the influence of BMI on long term behavior patterns of learners who had a history of DSA in secondary schools once they join institutions of higher learning be carried out. This will help by answering questions on whether BMI is more effective in the short-term or in the long term. This study was on the short term application of BMI on secondary school students suffering DSA and showed impressive reduction of substance use. Hence a long-term study would be expected that long-term implementation of the BMI would have more lasting positive outcomes.

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APPENDICES

Appendix I: Introduction Letter

Bernadette Njoki Muturi,
Kenyatta University,
Dated: 20th April, 2021.

The Principal,

_____ Secondary School.

Dear Sir/Madam,

REF: PERMISSION TO CONDUCT A RESEARCH IN YOUR SCHOOL

I am a student pursuing a Masters of Arts (Counselling Psychology) of Kenyatta University. I am conducting research on the effectiveness of brief motivation intervention on building resilience against use of substance among students in secondary schools in Kiambu County, Kenya. Kindly and honestly respond to all the items of the questionnaire. The information you provide is for academic purposes and your identity will remain confidential. Do not write your name on the questionnaire. Thank you for your co-operation.

Yours faithfully,

Bernadette Njoki Muturi

C50/CE/22489/2011

Appendix II: BMI Screening Template (for teachers Use only)

Teachers BMI Skills retraining areas.

The researcher alone or together with a team would assemble guidance and counseling teachers and discuss with teachers on BMI. The discussions was geared towards developing a common approach to areas mentioned below;

- Recreating a new dimension in guidance and counseling in schools though motivation.
- How to identify areas each individual learner derives motivation from
- How to use learner BMI areas to discourage DSA
- Taking learners through decision making process- short term and long term objectives
- Assisting learners develop their short term and long term goals
- Assist in value development among learners.
- How to assist learners develop their problem solving skills individually based on their short term and long term goals.

After a minimum of two sessions with each cluster teachers, each guidance and counseling screened their learners before the start of the BMI and on each and every session the template below was used in the discussions with learners. A final interview was held and the teacher fills the second questionnaire.

The teacher purposefully selected some learners who were undertaken through the normal guidance and counseling procedures in the secondary schools. This set of

control required the guidance and counseling teacher to fill a different questionnaire and mark it C (capital “C”) for ease of identification.

Screening

At each visit, ask about alcohol use

- How many rolls of cannabis/drinks per week?
- Maximum Rolls of cannabis/drinks per occasion in past month?

Use the questions to probe for Substance abuse/alcohol problems

- Have you ever tried to cut down on your substance abuse?
- Do you get annoyed when people talk about your substance uptake?
- Do you feel guilty about your engagement in substance abuse?
- Have you ever had an eye-opener? (i.e., a smoke/drink first thing in the morning)

Screen is positive if

- Consumption is greater than four rolls of cannabis (for boys) and 3 rolls of cannabis (for girls) per week
- Consumption is greater than four times a weekly (for boys) or greater than three days per occasion (for girls)

Then assess for

- *Behavioral problems: work, family, school, accidents*

Scripts for Brief Intervention

Component (Session 1) Screening, Evaluating, and Assessing	Script in the BMI sessions with learner	Script for entry by the researcher during the sessions
	<p>"In reviewing the information you've given me, using a scale of 'not ready,' 'unsure,' and 'ready,'</p> <p>how prepared do you feel you are to stop substance abuse/drinking?"</p>	<p>Client says</p> <p>"....."</p> <p>....."</p>

<p>Talking About Change and Setting Goals (Session 2)</p>	<p>"It looks as if you have been having aboutrolls of cannabis/ drinks a week and have been doing some binge smoking/drinking on weekends. You said you've been under a lot of stress with your family/teachers and at school. You also indicated that you don't really think /smoking a joint/alcohol is making things worse, but you're willing to think about that. Is that an accurate assessment of how you see it?"</p> <p>Client says</p> <p>"....."</p> <p>....."</p>	<p>"you've said that you completely forgot to do the homework because of arguments with your classmates/teachers/family and that this surprised you because you had really intended to get it done. Is that about, right?"</p> <p>Client says</p> <p>"....."</p> <p>....."</p>
<p>Summarizing and Reaching Closure</p>	<p>"Even though you're not ready to stop smoking/drinking at this time, I'm glad you agreed to write down the pros and cons of not drinking. How about if we meet tomorrow for a follow-up?"</p> <p>Client says</p> <p>"....."</p> <p>....."</p>	<p>"You just did a good piece of work. I think you made some progress. I'm glad you're trying something new. How about if we meet again in a week to see how things went for you?"</p> <p>Client says</p> <p>"....."</p> <p>....."</p>

	
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Appendix III: Brief Interventions for Substance Abuse

Used on Learners after a Minimum of Four Weeks BMI Sessions

Screen

At each visit, ask about alcohol use

- How many rolls of cannabis/drinks per week?
- Maximum Rolls of cannabis/drinks per occasion in past month?
- Do you feel **G**uilty about your engagement in substance abuse?
- Have you ever had an **E**ye-opener? (i.e., a smoke/drink first thing in the morning)

Section A: Use the questions to probe for Substance abuse/alcohol problems

Kindly indicate your response where 1=Disagree, 2 = Strongly disagree, 3= Neutral, 4= Agree and 5= Strongly agree

Statement	1	2	3	4	5
I tend to bounce back quickly from substance abuse after guidance and counseling sessions					
I have a hard time abstaining from substance abuse after guidance and counseling sessions					
It does not take me long to recover from substance abuse after guidance and counseling sessions					
It is hard for me to snap back from substance abuse after guidance and counseling sessions					
I usually come through drug abuse with little trouble					
I tend to take a long time to get over drug and substance abuse					
I have tried to cut down on drug use					
I feel Guilty for engaging in drug use as a student.					

Section B: Decision Making Capability

Kindly respond to the statements below where 1= least priority, 2= less priority, 3= little priority, 4=most priority

Statement	1	2	3	4
My friends are				
My friends whom we indulge together				
The opinion of my peers whom we indulge together				
Allocation of time in my academics in				
In making decision, my current needs are				
I am prepared to fully quite substance abuse				
My academic performance is a				

Section C: Self Efficacy

Kindly respond to the statements given below where, 5=strongly agree, 4=agree, 3=I do not know, 2=disagree and 1=strongly disagree.

Statement	1	2	3	4	5
I have hard time abstaining from substance abuse after guidance and counseling sessions					
I does not take long for me to recover from substance abuse after guidance and counseling sessions					
It is hard for me to snap back from substance abuse after guidance and counselling sessions					
I usually come through substance abuse with little trouble					
I tend to take a long time to get over substance abuse					
I have tried to cut down on substance abuse					
I feel guilty after engaging in drug and substance abuse					
I have hard time abstaining from substance abuse after					

guidance and counseling sessions					
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Section D: Student Resilience Section:

Kindly respond to the statements given below where, 5=strongly agree, 4=agree, 3=I do not know, 2=disagree and 1=strongly disagree

Item no. Description	1	2	3	4	5
Am able to adapt to change					
I Close and secure relationships					
Sometimes I feel that fate or God can help					
I Can deal with whatever comes					
My past success gives confidence for new challenge					
I can See the humorous side of things					
Coping with stress strengthens me					
I tend to bounce back after illness or hardship					
I know that things happen for a reason					
Best effort no matter what					
You can achieve your goals					
When things look hopeless, I don't give up					
I know where to turn for help					
when under pressure I focus and think clearly					
I Prefer to take the lead in problem solving					
I am not easily discouraged by failure					
I Think of myself as strong person					
I Make unpopular or difficult decisions					
I Can handle unpleasant feelings					
I have to act on a hunch					
I have a strong sense of purpose					
I am in control of your life					
I like challenges					
I work to attain your goals					
I take Pride in your achievements					