

**THE IMPACT OF COMMUNICATION  
CAMPAIGNS ON MENTAL HEALTH BEHAVIOUR  
CHANGE AMONG SECONDARY SCHOOL  
STUDENTS IN NAIROBI COUNTY**

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**DOCTOR OF PHILOSOPHY**

**( Mass Communication)**

**JOMO KENYATTA UNIVERSITY OF  
AGRICULTURE AND TECHNOLOGY**

**2015**

**The impact of communication campaigns on mental health behaviour  
change among secondary school students in Nairobi County**

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**A thesis submitted to the department of media technology and applied  
communication in the school of communication and development studies in  
partial fulfillment of the requirement for the award of the doctor of  
philosophy in mass communication of Jomo Kenyatta University of  
Agriculture and Technology**

**2015**

**DECLARATION**

This thesis is my original work and has not been presented for a degree in any other university.

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## **DEDICATION**

I dedicate this work to my dear parents. To my father, Mwalimu Josiah Nyakundi, whose love for education and distinguished teaching career has always been a source of inspiration. To my mother, Mrs Elizabeth Kwamboka Nyakundi, who inculcated in us from very early in life the value of hard work. I have never known a more hardworking person.

To my sisters and brothers, whose support and encouragement is always assured.

To my dear wife, Emily Kwamboka, whose love gave me the peace and strength to do this work. Her spirit of self-sacrifice made it possible to pursue my PhD studies.

To my lovely children Maya, Golda, Samuel and Madeline, who constantly remind me of the need to work persistently and achieve academic excellence.

## **ACKNOWLEDGEMENT**

I wish to very sincerely thank my supervisors Dr. Hellen Mberia and Dr. Ndeti Ndati for their guidance, support and encouragement throughout this journey. Without their patience, understanding, criticisms and comments, this work would not have been complete.

I am grateful to the management of Mathari National Teaching and Referral Hospital for permission to collect data. I am immensely indebted to all the psychiatrists and the psychiatric nurses I interviewed. I am grateful that they found time out of their busy schedules to participate in this study, to offer their insights regarding mental health issues and to help in accessing the materials used for mental health communication campaigns. I also thank all the teachers who assisted me to collect data from the public schools in Langata District.

Many thanks to my parents for the values they taught us which enabled me to begin and complete this work and for their prayers. My sisters and brothers often asked me where I have reached. This enabled me to be persistent. I am grateful to them.

I thank my dear wife Emily Kwamboka and our children Maya, Golda, Samuel and Madeline for their love and understanding throughout my studies.

Above all, I thank God for the gift of life, good health and wonderful family, teachers and friends.

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## **ABBREVIATIONS AND ACRONYMS**

ADI- Alzheimer's Disease International

CDHAC- Commonwealth Department of Health & Aged Care

CRA- Commission for Revenue Authority

KNHCR- Kenya National Commission on Human Rights

PTSD- Posttraumatic Stress Disorder

WHO- World Health Organization

## OPERATIONAL DEFINITION OF TERMS

- i. **Comorbidity:** The existence of two or more illnesses- whether physical or mental- at the same time in a single individual.
- ii. **Early intervention:** Diagnosing and treating mental illnesses early in their development.
- iii. **Intended campaign outcome:** The degree to which people follow recommended responses.
- iv. **Knowledge:** The degree to which people can correctly answer questions about a recommended response and health threat.
- v. **Mental disorders:** Comprise a broad range of problems generally characterized by some combination of abnormal thoughts, emotions, behavior and relationship with others. Examples are schizophrenia, depression, mental retardation and disorders due to drug use.
- vi. **Mental health:** A state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community (WHO, 2001).
- vii. **Mental health promotion:** Any action taken to maximize mental health and well-being among populations and individuals that focuses on improving social, physical and economic environments that affect mental health, and enhancing the coping capacity of communities as well as individuals (CDHAC, 2000).
- viii. **Mental health services:** Diagnostic, treatment, and preventive services that help improve the way individuals with mental illnesses feel, both physically and emotionally, as well as the way they interact with others.
- ix. **Mental illness:** Refers collectively to all diagnosable mental disorders.
- x. **Post-traumatic Stress Disorder:** A psychological reaction that occurs after experiencing a highly stressing event, such as wartime combat, physical violence or a natural disaster. It is usually characterized by depression, anxiety, flashbacks, recurrent nightmares and avoidance of reminders of the event.

- xi. **Prevention:** Interventions that occur before the initial onset of a disorder and prevent the development of disorder, by targeting known risk and protective factors on causal pathways (CDHAC, 2000).
- xii. **Recovery:** A process by which people who have a mental illness are able to work, learn and participate fully in their communities.
- xiii. **Stigma:** A mark of shame or discredit. A sign of social unacceptability.
- xiv. **Substance abuse:** The inappropriate use of and possibly addiction to illegal and legal substances including alcohol and prescription and non-prescription drugs.

## **ABSTRACT**

This study investigated the impact of communication campaigns on mental health behavior change among secondary school students in Nairobi County. Although communication campaigns for mental health have been going on in Kenya over the years, studies indicate that knowledge levels are still low and stigma is widespread. This study had four objectives: to evaluate the levels of knowledge of mental health among the target population, to analyze the messages communicated during communication campaigns for mental health, to assess the effectiveness of the communication campaigns conducted for mental health and to analyze the demographic factors that influence mental health behavior change. The study will benefit the public, planners of mental health communication campaigns, the government, policy makers in the Ministry of Health, psychiatrists and other health practitioners. The study used the theory of symbolic interactionism and the health belief model. The target population of this study was students from public secondary schools in Langata District in Nairobi County. Stratified random sampling technique was used to select the students who participated in the study. Langata District was purposively selected. Qualitative data was collected from psychiatrists and psychiatric nurses using interviews. These psychiatrists and psychiatric nurses were selected using the stratified random sampling technique. The psychiatrists and psychiatric nurses were selected from a public hospital which was purposively sampled. This data was analyzed thematically and presented in narrative form. Quantitative data was collected from respondents through the survey method using a questionnaire and from printed materials obtained from the public hospital. It was analyzed using descriptive statistics and content analysis. It was then presented in tables. The study found that the levels of knowledge of mental health among public secondary school students in Langata District in Nairobi County were low, the messages communicated during communication campaigns for mental health left out important information and they were not tailored for secondary school students, and that the communication campaigns for mental health did not adhere to the principles of effective health communication. Consequently, it was concluded that knowledge of mental health among secondary school students in Nairobi County was low, the messages communicated during communication campaigns for mental health were inadequate and that the communication campaigns for mental health were ineffective. The study recommends that mental health communication campaigns focus on schools to increase levels of knowledge of mental health among young people, all important information about mental health should be

included in the messages communicated during communication campaigns for mental health and that the communication campaigns follow the principles of effective health communication campaigns.

## **CHAPTER ONE**

### **1.0 INTRODUCTION**

#### **1.1 Background to the study**

A communication campaign is an organized communication activity directed at a particular population for a particular period of time to achieve a particular goal (Snyder, 2001). Health communication campaigns are largely driven by the need to fill information gaps (Wallack & Dorfman, 2001). Worldwide, health communication campaigns have been used to promote a wide variety of health behaviours, including seat belt use, dietary change, medication use, exercise, dental care, substance use prevention and cessation, family planning, use of health services and testing and screening for diseases (Snyder, 2007).

When well planned and executed, health communication campaigns have positive impacts on behavior change. For instance, the World Health Organization credits public health communication campaigns with success in reducing tobacco and alcohol use, increased uptake of breast-feeding, and improved nutrition and exercise (WHO, 2009). In Finland, long-term comprehensive community interventions with strong communication components have resulted in 80% decreases in cardiovascular deaths in working age populations (Puska, 2010).

Effective health communication campaigns are characterized by at least three important factors. First, these campaigns are more likely to use mass communication and behavior change theory as a basis for campaign design. Second, they are more likely to use formative research such as focus group to develop messages and inform campaign strategy. Third, they are more likely to link media strategies with community programs thus reinforcing the media message and providing local support for desired behavior changes (Wallack & Dorfman, 2001).

The US Office of Disease Prevention and Health Promotion (2000) suggests a number of attributes of effective health communication. These attributes include

accuracy, availability, balance, consistency, cultural competence, evidence base, reach, reliability, repetition, timeliness, and understandability.

Atkin (2001) says that health campaigns that are directly targeted to the focal segment of the population tend to have a relatively modest degree of impact, but the effects vary substantially according to the palatability of the advocated behavior, receptivity of target audience, and the quality and quantity of messages.

Health communication campaigns may fail to be effective due to several reasons. Audience resistance barriers arise at each stage of response, from exposure to behavioural implementation. Perhaps the most elemental problem is reaching the audience and attaining attention to the messages. Other key barriers include misperception of susceptibility to negative outcomes, deflection of persuasive appeals, denial of applicability to self, rejection of unappealing recommendations, and inertia or lethargy (Atkin, 2001).

### **1.1.1 Communication campaigns for mental health**

Challenging stigma and promoting increased awareness of, and positive attitudes towards mental health issues have been addressed through media campaigns like, You in Mind (Hersey et al., 1984; Barker et al., 1993); the Norwegian Mental Health Campaign (Sogaard & Fonnebo, 1995); “Changing Minds” by the Royal College of Psychiatrists in the UK; and the World Psychiatric Association’s campaign “Open Doors” (Sartorius, 1997).

The Norwegian Mental Health Campaign was a nationwide mass media-based publicity and information strategy over a six month period, culminating in a six hour television broadcast. The campaign achieved wide penetration, putting mental health issues on the cultural agenda in Norway and changing the knowledge of and attitudes towards mental health problems (Sogaard & Fonnebo, 1995). In the UK, the ‘You in Mind’ television series had a positive impact on mental-health-related understanding and behavioural intentions of a large and diverse national audience (Barker et al., 1993). In the USA, the media-based San Francisco Mood Survey Project, aimed to

target depression and depressive symptoms in the population. The intervention was delivered through television. It led to a significant reduction in depressive symptoms in those individuals who initially scored at high levels of depressive symptoms and watched the segments during the intervention's broadcast (Munoz et al., 1982).

This evidence shows that targeted and well-executed mass media campaigns, particularly if they are supported by local community action, can have a significant impact on increasing understanding, reducing stigma and increasing knowledge, as well as impacting positively on mental health literacy at the community level (Rogers, 1996; Jané-Llopis, Barry, Hosman & Patel, 2005).

WHO (2007) encourages the need for public education and awareness campaigns on mental health in all countries. The main goal of these campaigns is to reduce barriers to treatment and care by increasing awareness of the frequency of mental disorders, their treatability, the recovery process and the human rights of people with mental disorders. WHO (1986, 2003, 2007) observes that well-planned public awareness and education campaigns can reduce stigma and discrimination, increase the use of mental health services, and bring mental and physical health care closer to each other.

Over the years, coordinated communication campaigns on mental health are held in Kenya mainly prior to and when celebrating the World Mental Health Day which is marked on 10<sup>th</sup> October every year (Kiima & Jenkins, 2010). Kiima and Jenkins (2010) add that Kenya has participated in the celebration of World Mental Health Day annually since 1992 when the day was first celebrated. The national event is held on a rotational basis in each province and presided over by the minister for health. The event is a culmination of a weeklong mental health activities carried out throughout the country at district levels. The minister gives a trophy and a certificate to the national winner of the national competition for the best mental health worker of the year. The minister's speech articulates the mental health issues contained in the theme for each year, accompanied by extensive media coverage. Mental health workers from different levels in the service give lectures, symposia and workshops to create public awareness as well as orientation of different groups and cadres on

mental health. Psychiatric hospitals and wards have open days too (Kiima & Jenkins, 2010).

Alone, these communication campaigns conducted once annually may not be effective in increasing levels of knowledge about mental health and mental illnesses, and increasing the numbers of those who seek treatment in hospitals after suffering from mental illnesses. They may also not make any significant impact in reducing stigma and the prevalence of mental illnesses. Barry and Jenkins (2007) argue that these are only achievable through comprehensive approaches that intervene at a number of different time periods rather than once off.

Effective health communication campaigns adhere to the following principles: conducting formative research on and about the target audience, using theory as a conceptual foundation, segmenting one's audience into meaningful subgroups, using a message design approach that is targeted to the audience segments, utilizing effective channels widely viewed by and persuasive with the target audience, conducting process evaluation and ensuring high message exposure and using a sensitive outcome evaluation design that reduces threats to internal validity and allows causal inferences about campaign impact to be made (Noar, 2006; Palmgreen et al., 2008). This study intended to establish whether communication campaigns on mental health in Nairobi County adhere to these principles.

### **1.1.2 Communication campaigns for mental health targeting the youth**

One of the communication campaigns for mental health targeting the youth is the 'Just Like Me' anti-stigma campaign conducted in Scotland (Jane-Llopis, & Braddick, 2008). The campaign used cartoon based TV adverts and posters that were displayed in schools and youth clubs among other venues. The campaign focused on the following overall messages: firstly, one in ten young people in Scotland currently experience a mental health problem; secondly, any young person can have a mental health problem but most will recover and get on with their lives; and lastly, stand by your friends if they have a mental health problem.

Following the campaign, a survey suggested an impressive exposure to the ‘See Me’ campaign with significant gains in knowledge and awareness of all mental health problems (especially those highlighted in the campaign). The number of hits to access information on the ‘See Me’ website increased dramatically and young people who had seen campaign materials reported feeling much more confident in knowing what to do to help a friend experiencing a mental health problem (Jané-Llopis & Braddick, 2008).

Romer and Bock (2008) conducted a study on counter-stereotyping as a communication strategy that could reduce the impact of harmful stereotypes associated with mental illnesses among young people. They sought to determine the degree to which young people will revise their stereotypic judgements of persons with mental illness who have been treated and no longer exhibit symptoms of their disorder. The results showed that counter-stereotyping through presentation of treatment information led to significantly more favourable reactions towards the mentally ill and increased incentives to seek treatment. Romer and Bock (2008) concluded that the dissemination of factual, counter-stereotypical information could be a key component of educational and media intervention programmes to combat stigma (Corrigan & Lundin, 2001; Sartorius & Schulze, 2005).

## **1.2 Statement of the problem**

Whereas mental health problems are prevalent worldwide and more people are at risk of contracting mental illnesses, knowledge levels of mental health are low and treatment inaccessible. WHO (2001) and Williams et al (2005) observe that more than 450 million people suffer from mental disorders worldwide and as many as one in four persons may experience mental or behavioural disorders during their lifetime. Furthermore, mental disorders are expected to be second only to heart disease as a leading source of the global burden of disease by the year 2020 (Murray & Lopez, 1996). In spite of this evidence, efforts to increase levels of knowledge of mental health as well as accessibility to treatment have been minimal (WHO, 2010). Studies indicate that nearly two-thirds of those suffering from mental illnesses do not receive

adequate care due to stigma, discrimination, neglect and poverty (Atwoli, 2011; Griffin, 2008; Brundtland, 2001). Others do not receive treatment because of the inability of medical personnel to detect that they are mentally ill (Ndetei et al, 2009).

Donovan et al (2006) observe that the growth of mental health problems and disorders is outstripping the capacity of mental health services to meet the demand for traditional, individual treatment services. The scholars note that this has led to growing international interest in promotion, prevention and early intervention for mental health (Donovan et al, 2006). In investigating the impact of communication campaigns for mental health in Nairobi County, this study sought to find out if the target audience was given messages that empowered them to prevent mental illnesses and seek early intervention measures to avoid the development of chronic mental illnesses.

Scanlon and Raphael (2002) assert that there is a large need in the community for information about mental illness. They explain that understanding about mental illness can contribute to reducing the stigma and discrimination experienced by people with mental illness, as well as enhancing early identification and help seeking for those with problems. These are some of the indicators of the impact of communication campaigns in enhancing knowledge of mental health that this study sought to investigate.

In Kenya, many studies on health communication have focused on HIV/ AIDS. To the researcher's knowledge, there is no available study that focuses on mental health. Mberia (2009) studied persuasive communication factors that influence university students in their response to HIV and AIDS prevention campaign messages. Data for this study was collected using questionnaires, focus group discussions and in-depth interviews. Mberia (2009) found that: 82.6 % of the youth have knowledge of HIV and AIDS; 94 % of the youth reported that HIV and AIDS is a serious infection; though the majority of the youth reported that they were the most vulnerable to HIV and AIDS, 64.8% of males and 64% of females denied being personally susceptible; not every young person perceived the benefits of abstinence as a preventive measure against HIV and AIDS, and not every young person believed in the use of condoms

as a preventive measure against the HIV and AIDS infection. The findings indicate a clear disconnect between knowledge and behavior change. The current study also sought to investigate whether knowledge of mental health had an impact on behavior and attitude change.

Ndati (2013) focused on interpersonal communication and HIV/AIDS. His study focused on influencing behavioural responses to HIV amongst students. The site of the study was Lang'ata District in Nairobi County and the target population was both male and female students in public mixed secondary schools. The study used the mixed methods approach. Data was collected using structured interviews, focus group discussions and key informant interviews. The study had the following findings: the majority (98.8%) of the youth had knowledge of HIV/AIDS, 60.9% of the respondents did not perceive themselves to be at risk of HIV infection, 80.9% of the students did not use a condom the last time they had sex, students paid little attention to media preventive campaigns, and students felt that HIV and AIDS media campaign messages were making very little impact in behavior change as 73.8% said the campaigns were not informative. The current study focused on communication campaigns for mental health and their impact in enhancing knowledge among secondary school students. It also differed with Ndati (2013) in methodology as data was collected in Lang'ata District and Mathari Hospital using questionnaires, interviews and content analysis.

Beaudoin (2009) studied the effects of a media campaign that targeted Post Traumatic Stress Disorder (PTSD) after Hurricane Katrina. The findings indicated that the media campaign had positive direct effects on PTSD beliefs and PTSD preventive behaviours. The current study sought to establish whether communication campaigns for mental health conducted in Nairobi County had an effect on knowledge of causes of mental illnesses, preventive behaviours and availability of treatment.

Indeed, there is sufficient evidence of communication campaigns for mental health being effective in enhancing knowledge (Hersey et al., 1984; Barker et al., 1993;

Sogaard & Fonnebo, 1995; Sartorius, 1997). This, therefore, underscores the need for effective communication campaigns on mental health.

Though communication campaigns for mental health have been going on in Kenya (Kiima & Jenkins, 2010), knowledge levels of mental health are still low, the levels of stigma are high and access to treatment is low (Atwoli, 2011; KNCHR, 2011; Bocha, 2012). There is no available literature on the evaluation of these communication campaigns to show whether they are effective or ineffective. Previous studies conducted on mental health in Kenya are all meant for medical purposes but they conclude that there is need for public education to be conducted to raise levels of awareness of mental health (Othieno et al, 2008; Ndetei et al, 2009; Kiima & Jenkins, 2010).

Consequently, this study sought to assess the impact of communication campaigns on mental health behavior change among secondary school students in Nairobi County. The study focused on secondary school students because studies indicate that adolescence and young adulthood is the age when many mental disorders first emerge (Seroczynski, Jacques, & Cole, 2003; Wunderlich, Bronisch, Wittchen & Carter, 2001). Furthermore, studies indicate that young people aged 12-25 are most at risk of developing mental disorders, and that this is a life stage where concerted effort is required to prevent the development of adult and chronic mental health problems (Rickwood, 2010; McGorry et al, 2007; Kessler et al, 2005). Lastly, enhanced knowledge of mental health among secondary school students has been found to reduce bullying, aggression and truancy. It enhances coping and problem solving skills and increases engagement, achievement and attendance (Jané-Llopis et al, 2005).

### **1.3.1 General objective**

The general objective of this study was to assess the impact of communication campaigns on mental health behavior change among secondary school students in Nairobi County.

### **1.3.2 Specific objectives**

The specific objectives of this study were:

- i. To assess the knowledge levels of mental health among secondary school students in Nairobi County.
- ii. To analyze the messages communicated during communication campaigns for mental health in Nairobi County.
- iii. To evaluate the effectiveness of communication campaigns for mental health conducted in Nairobi County.
- iv. To analyze the demographic factors that influence mental health behavior change.

### **1.4 Research questions**

- i. What are the knowledge levels of mental health among secondary school students in Nairobi County?
- ii. What kinds of messages are communicated during communication campaigns for mental health held in Nairobi County?
- iii. How effective are the communication campaigns for mental health conducted in Nairobi County in influencing mental health behavior change?
- iv. Which demographic factors influence mental health behavior change?

### **1.5 Justification of the study**

Studies show that adolescence and young adulthood is the age when many mental health disorders first emerge (Seroczynski, Jacques, & Cole, 2003; Wunderlich, Bronisch Wittchen & Carter, 2001). Studies further explain that young people aged 12-25 are most at risk of developing mental disorders, and that this is a life stage where concerted effort is required to prevent the development of adult and chronic

mental health problems (Rickwood, 2010; McGorry et al., 2007; Kessler et al, 2005). The current study sought to assess the knowledge levels of mental health among secondary school students in Nairobi County. To do this, the study sought to establish whether communication campaigns for mental health conducted in Nairobi County target secondary school students to increase their knowledge of mental health and therefore promote positive mental health behavior change. To the best of the researcher's knowledge, there is no available literature that explains who is targeted during communication campaigns for mental health conducted in Nairobi County.

The second reason why this study was conducted was to analyze the messages communicated during communication campaigns for mental health. The study sought to find out whether these messages had information on the types of mental illnesses, their causes, prevention and treatment. It also sought to find out whether these messages contained information on who is vulnerable to mental illnesses and how severe mental illnesses are. The messages contained in the communication campaigns will influence mental health behavior change.

The third reason for conducting this study was to evaluate the communication campaigns for mental health conducted in Nairobi County to find out whether they adhere to established attributes of effective health communication campaigns. These attributes are accuracy, availability, balance, consistency, cultural competence, evidence base, reach, reliability, repetition, timeliness and understandability (US Office of Disease Prevention and Health Promotion, 2000). The other attributes are use of mass communication and behavior change theory as a basis for campaign design, use of formative research to develop messages and inform campaign strategy and linking media strategies with community programs thus reinforcing the media message and providing local support for desired behavior changes (Wallack & Dorfman, 2001). Communication campaigns that have these attributes will promote positive mental health behaviours among the target audience.

The fourth reason why this study was conducted was to analyze the demographic factors that influence mental health behavior change. This will be important as it will help mental health practitioners and mental health communication planners to know

who to target with which mental health messages and which strategies to use to effectively influence behavior change towards mental health issues.

This study will be beneficial to planners and designers of communication campaigns for mental health, health communication researchers and practitioners, the government, policy makers in the Ministry of Health, psychiatrists and other health practitioners. Firstly, this study is important to planners and designers of communication campaigns for mental health, and other health problems, because its findings explain the relationship between communication campaigns for mental health, knowledge levels and behavior change among the target audience. The study explains possible reasons for the ineffectiveness of the campaigns in enhancing knowledge levels and promoting mental health behavior change. It also suggests ways the campaigns could be improved. Therefore, the study will be beneficial in improving the process of planning, designing and conducting communication campaigns for mental health, and other health problems, to effectively enhance knowledge levels.

Secondly, the findings and suggestions of this study will be important to the government and policy makers in the Ministry of Health. The policy makers will understand the levels of knowledge of mental health in Kenya and how this is affecting the prevalence of mental illnesses and access to treatment. They will also understand what effective communication campaigns for mental health can achieve in enhancing knowledge, reducing stigma, lowering the prevalence rates of mental illnesses and increasing access to treatment. This will lead to recognition of the important role played by communication campaigns for mental health and what is needed to conduct these campaigns. In addition, the study underscores the importance of the implementation of policies that will lead to increased funding of mental health promotion campaigns, establishing enough psychiatric facilities in the country and encouraging more medical personnel to train in psychiatry.

Thirdly, the study will be useful to psychiatrists and other health practitioners in the areas of practice, policy and research. It will contribute to a clearer understanding of

the role they can play in promoting knowledge of mental health and influencing positive mental health behavior change.

Lastly, the findings and recommendations of this study will contribute to the existing body of knowledge of health communication by analyzing the relationship between communication campaigns, the levels of knowledge and behavior change among target audiences. The study will also make a contribution to knowledge in health communication by suggesting creative strategies in effective design of health messages, communication campaign planning, implementation and evaluation. This will benefit health communication researchers and practitioners.

### **1.6 Scope of the study**

This study focused on how communication campaigns for mental health are conducted in Nairobi County and whether they are effective or not in enhancing knowledge and therefore positive mental health behavior change. To establish the effectiveness of these communication campaigns, the study examined secondary school students' knowledge levels of mental health.

Nairobi County was selected because it has the largest mental hospital in Kenya, Mathari National Teaching and Referral Hospital. The choice of Mathari National Teaching and Referral Hospital was informed by the fact that communication campaigns for mental health in Kenya have over the years been conducted in hospitals that have mental health facilities. Mathari National Teaching and Referral Hospital being the largest mental hospital in Kenya has been consistently used as the venue of communication campaigns for mental health held in Nairobi County since 1992.

Data to establish knowledge levels and mental health behavior change among secondary school students in Nairobi County was collected from public secondary school students in Langata District. Langata District was selected because it has the largest informal settlement in Kenya ([www.unhabitat.org](http://www.unhabitat.org)). Poverty levels are high in informal settlements. Research shows that people living in poverty are more likely to

suffer from mental health problems (Palmer, 2011; Patel, 2005; Patel & Jané-Llopis, 2005; WHO, 2010; Barry & McQueen, 2005; Bhugra, 2004; Melzer, Fryers & Jenkins, 2004; Danso, 2002).

Additional data was collected from psychiatrists and psychiatric nurses at the Mathari National Teaching and Referral Hospital as well as from materials used by the hospital during communication campaigns for mental health conducted within a period of three years (2011-2013). These are the campaigns whose messages were likely to be clearly remembered by the target audience and therefore whose impact was likely to be stronger. This additional data was to ensure that the information received and upon which findings and suggestions were made was comprehensive.

In terms of theoretical scope, the study used two theories. It was based on the principles of the symbolic interactionism theory and the health belief model. Through these theories' principles and components, the knowledge levels of people about mental health and their attitudes towards it were explained.

### **1.7 Limitations**

The study had two main limitations. The first limitation was the unavailability of materials used for the World Mental Health Day communication campaigns in 2011 at Mathari National Teaching and Referral Hospital. Data from these materials could have helped to give a clearer understanding of the nature of messages communicated during communication campaigns for mental health held in 2011 and how they were communicated.

The second limitation was lack of documented information on what the goals and objectives of the mental health communication campaigns conducted in 2011, 2012 and 2013 were and what process was followed during the design and implementation process of these campaigns. Documented information could have been very useful in the analysis of these communication campaigns.

### **1.8 Delimitation**

To overcome the limitation of unavailability of materials used for the 2011 World Mental Health Day communication campaigns at Mathari National Teaching and Referral Hospital, the researcher relied on data from World Federation for Mental Health and interviews with psychiatrists and psychiatric nurses about the messages communicated during that year and how they were communicated. World Federation for Mental Health is the organization which develops the themes and prepares relevant literature for World Mental Health Day each year. Relying on data from World Federation for Mental Health and psychiatrists and psychiatric nurses ensured that the study did not lack important information on what messages were communicated about mental health during the 2011 World Mental Health Day and how they were communicated. The inability to keep materials used for communication campaigns for reference purposes was discussed as one of the elements of ineffective communication campaigns for mental health in Nairobi County.

To overcome the limitation of lack of documented information on what the goals and objectives of communication campaigns for mental health conducted in 2011, 2012 and 2013 were, the researcher relied on interviews with psychiatrists and psychiatric nurses who had participated in the communication campaigns to obtain relevant information. Since these psychiatrists and psychiatric nurses are key stakeholders in mental health and they actually participate each year in disseminating mental health messages, the information they provided about the goals and objectives of these campaigns can be said to be reliable. This limitation was discussed as another weakness that should be addressed to make communication campaigns for mental health in Nairobi County and generally the entire country effective.

## **CHAPTER TWO**

### **2.0 LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter provides a detailed review of literature on communication of mental health. The first section is on the definition and types of mental health problems and their causes. To evaluate the effectiveness of communication campaigns for mental health, the study sought to find out whether the communication campaigns contain messages on the types of mental health problems, who is susceptible and their causes. Similarly, the study relied on the target audience's awareness of these messages to assess their knowledge levels of mental health.

A section on the prevalence of mental illnesses in Kenya and among young people follows. This is because the target audience in this study was secondary school students. The gap in these sections that the study sought to address was the unavailability of sample cases on mental health problems in schools and comprehensive statistics on the actual prevalence of mental illnesses among young people in Kenya considering that they are most at risk of mental illnesses.

The last section is on communication of mental health issues where the study targets the following gaps: lack of literature to guide population-wide mental health interventions, lack of literature on population-wide mental health promotion campaigns that targeted people to be proactive about maintaining their own and others' mental health, and general lack of literature on evaluation of communication campaigns for mental health in Kenya and the rest of the world.

The chapter also provides an in-depth discussion of the theoretical and conceptual framework. The study discusses the following theories and models of health communication: the theory of planned behavior, the health belief model, the transtheoretical model, process of behavior change, the extended parallel process model, the social marketing theory and symbolic interactionism. The study uses the

health belief model and symbolic interactionism. It gives reasons why the other theories are not relevant to the communication of mental health issues in Kenya and why the health belief model and symbolic interactionism have been used.

### **2.1.0 Understanding mental health**

The Mental Health Foundation (2010) defines mental health as:

A state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community.

Donovan et al (2006) say that mental health problems and mental disorders refer to the spectrum of cognitive, emotional and behavioural disorders that interfere with the lives and productivity of people. Mental health can also be defined as soundness of mind, determined from a person's behaviours and interactions with others, and through the kind of decisions and judgements they make (Taggart, 2011). Taggart observes that the terms 'mental health problems,' 'mental illness,' and 'psychiatric disorders' have been used within society interchangeably to cover a wide range of feelings and behaviours from those that can be described as normal to chronic and enduring feelings.

Donovan et al (2006) distinguish between mental health problems and mental disorders by saying that mental health problems are less severe and of shorter duration than mental disorders, but may develop into a mental disorder. Donovan et al (2006) note that mental disorders are of different types and degrees of severity, and the major mental disorders perceived to be public health issues include depression, anxiety, substance use disorders, psychosis and dementia.

Worldwide, mental and behavioural illnesses affect 450 million people and account for 15% of the overall burden of diseases from all causes (WHO, 2001). WHO also estimates that 151 million people suffer from depression and 26 million people from schizophrenia; 125 million people are affected by alcohol use disorders. It also estimates that as many as 50 million people suffer from epilepsy (WHO, 2004d).

Alzheimer's Disease International (2012) estimates that there were 36 million people living with dementia in 2010. WHO Dementia Report estimates that there were 7.7 million new cases of dementia in the year 2010, or one new case every four seconds (WHO, 2012). Around 844 thousand people die by suicide every year (WHO, 2010). Another WHO report (2010), asserts that people with mental health conditions are largely overlooked as a target of development work. The report argues that this is despite the high prevalence of mental health conditions, their economic impact on families and communities, and the associated stigmatization, discrimination and exclusion.

### **2.1.1 Types of mental health problems**

According to the International Classification of Diseases-10 (ICD-10) (World Health Organization, 1992), mental health problems are classified into eight categories. The first category is affective disorders. This group contains disorders in which the main sign is a change in mood. The mood change is usually associated with a change in the overall level of emotion, perception and activity. Most affective disorders tend to be recurrent and the onset of individual episodes can often be related to stressful events or situations. Disorders within this group include bipolar affective disorder, depressive disorder, recurrent depressive disorder, persistent mood disorder and dysthymia disorder.

Neurotic or stress-related disorders form the second category. This is a group of disorders in which anxiety-related symptoms are the core sign. For some people, this can occur in certain well-defined situations. As a result, these situations are avoided or endured with dread. Physical or somatic symptoms like palpitations, feeling faint, trembling and muscular tension are often associated with secondary fears of dying, losing control or going mad. Other disorders in this group include agoraphobia, social phobias, specific phobias, panic disorder, generalized anxiety disorder, mixed anxiety and depressive disorder, obsessive-compulsive disorder, adjustment disorders and post-traumatic stress disorder.

Schizophrenia disorders are the third category. This group brings together a range of psychotic disorders with schizophrenia being the most common condition. Schizophrenia is characterized by distortions of thinking and perception, and emotions that are inappropriate or blunted. Other disorders include paranoid schizophrenia, hebephrenic schizophrenia, catatonic schizophrenia, schizotypal disorder, persistent delusional disorders, acute and transient psychotic disorders and schizoaffective disorders.

The fourth category is organic disorders. This group of disorders comprises a range of conditions that are grouped together on the basis of their having in common a demonstrable aetiology in brain injury/disease. Dementia is a syndrome due to disease of the brain in which there is disturbance of memory, thinking, orientation, comprehension, language and judgement. Other disorders include dementia in Alzheimer's disease with early and also late onset, vascular dementia and multi-infarct dementia.

Other categories include mental and behavioural disorders due to psychoactive substance abuse, behavioural syndromes associated with physiological disturbances and physical factors, disorders of adult personality and behavior and disorders of psychological development.

This study sought to find out if mental health communication campaign messages enlighten people on these illnesses, who are susceptible, prevention of these illnesses, treatment and what the impact of these campaigns is in terms of raising levels of knowledge.

### **2.1.2 Causes of mental illnesses**

Mental illnesses can be caused by physical diseases, such as infection of the brain by parasites (such as malaria), viruses, and bacteria. They can also be caused by physical accidents or through assault, which involves the head. Cancer of the brain and a stroke can lead to destruction of brain cells. Mental illnesses are also caused by major illnesses such as uncontrolled diabetes, TB, cancer, diseases of the kidney, the

liver and other bodily organs which can have adverse effects on the brain, regardless of the presence or absence of effective treatment (Griffin, 2008; Ndetei, 2010; Ndetei et al, 2009).

Othieno et al (2008) assert that poverty, social and family disintegration and high risk behaviours such as alcohol and substance abuse present a risk profile for mental ill health in Kenya. These factors apply more to people living in disadvantaged conditions and suggest that mental illnesses are more prevalent among the poor (Palmer, 2011; Patel, 2005; Patel & Jané-Llopis, 2005; WHO, 2010; Barry & McQueen, 2005; Bhugra, 2004; Melzer, Fryers & Jenkins, 2004; Danso, 2002).

Norris et al (2002) and Atwoli (2012) found that specific stressors affect mental health. These include bereavement, witnessing the killing or serious injury of another person, especially a family member; life threat, fear, panic during the disaster, peritraumatic responses, horror, separation from family, property damage or financial loss, and relocation.

The study intended to establish whether mental health communication campaign messages contain information on the causes of mental illnesses and whether target audiences are aware of these causes.

### **2.1.3 Prevalence of mental illnesses in Kenya**

In their study, Ndetei et al (2009) found an overall pattern of a high level of mental disorders detected with greater frequency in inpatients than in outpatients from primary level health care facilities to tertiary level ones. They also report that most mental illnesses remained undiagnosed by clinicians in all facilities. They found that the doctors detected mental illnesses in only 4.1% of all the patients studied. Ndetei et al (2009) found that at higher levels of health provision, less mental disorders were recognized. They concluded that this might be as a result of the medical personnel being more specialized.

For instance, Bocha (Daily Nation, 2012) says that estimates show that about 620,000 people live with epilepsy in Kenya. He reports that out of this number, more than

8,000 are in Kilifi County. Overall, there is no comprehensive literature on the prevalence of mental illnesses in Kenya. This is a gap that should be addressed if effective communication campaigns for mental health in Kenya are to be conducted. Information about prevalence of mental illnesses constitutes evidence base, one of the attributes of effective health communication campaigns. It will influence the target audience to seek for information about the causes, prevention and treatment of mental illnesses.

#### **2.1.4 Prevalence of mental illnesses among young people**

According to WHO (2005), one fifth of children and adolescents suffer from developmental, emotional or behavioural problems, and one in eight have a mental disorder. Khasakhala et al (2012) studied the prevalence of depressive symptoms in public secondary schools in Nairobi. They found that the prevalence of clinically significant depressive symptoms was at 26.4%. Girls were found to exhibit more suicidal behavior than boys.

There is lack of comprehensive literature on the prevalence of other mental health problems among young people in Kenya. This information constitutes evidence base which is one of the important elements of effective health communication campaigns. Comprehensive literature on the prevalence of mental illnesses among young people in Kenya will provide useful information to be contained in communication campaigns for mental health. This information will influence young people to want to know the causes, prevention and treatment of mental illnesses that they are susceptible to. The information will also explain to mental health personnel and communication practitioners the importance and urgency of targeting young people in communication campaigns to raise their levels of knowledge of mental health.

#### **2.1.5 Promotion of mental health**

Barry (2007) explains that mental health promotion may be conceptualized as an empowering, participative and collaborative process that enables people to increase

control over their mental health and its determinants. According to Donovan et al (2006), mental health promotion is any action taken to maximise mental health and well being among populations and individuals that focuses on improving social, physical and economic environments that affect mental health, and enhancing the coping capacity of communities as well as individuals. It includes messages targeting interventions that occur before the initial onset of a disorder and prevent the development of a disorder as well as early interventions specifically targeting people displaying the early signs and symptoms of a mental health problem or mental disorder and people developing or experiencing a first episode of mental disorder (CDHAC, 2000).

The Ottawa Charter for Health Promotion (WHO, 1986) highlights the five effective intervention strategies for mental health promotion. The first one is building healthy public policy. Policies aiming to increase access to education, housing, nutrition or health care have proven to promote mental health. Mental health promotion needs to be incorporated into the wider health development and social inclusion agenda, in order that the broader determinants of poor mental health, such as poverty, social exclusion, exploitation and discrimination, can be successfully addressed (Barry, 2007).

The second intervention strategy is creating supportive environments. The charter advocates a socio-ecological approach to health, promoting the change of home, work and community environments with the aim of improving control over the determinants of health. This perspective moves mental health beyond an individualistic focus to consider the influence of broader social, cultural and economic factors. The socio-ecological perspective underscores the importance of mediating structures such as home, schools, workplaces and community settings as providing key contexts for mental health promotion interventions. For instance, evidence from systematic reviews and intervention trials on mental health promotion in schools highlights that comprehensive programmes that target multiple health outcomes in the context of a coordinated whole-school approach are the most consistently effective approach (Weare, 2000; Harden et al., 2001; Greenberg,

Domitrovich & Bumbarger, 2001; Barlow & Stewart-Brown, 2001; Patton, Olsson & Toumborou, 2002; Mentality, 2003; WHO, 2004b; WHO, 2004c). These programmes have successfully led to increases in mental wellbeing, competence and social skills as well as decreases in anxiety and depressive symptomatology. Social outcomes have included, among many, reductions in aggression and bullying and increases in school achievement (Greenberg et al., 2001).

Strengthening community action is the third intervention strategy highlighted by the Ottawa Charter. The charter emphasizes enabling local communities to actively participate in setting priorities, making decisions, planning strategies and implementing them in order to achieve better health.

The fourth intervention strategy is developing personal skills. This strategy supports personal and social development through providing information, education for health and enhancing life skills. It increases the options available to people to exercise more control over their own health and environment to make choices conducive to health. This includes programmes designed to enhance resilience and promoting social competence, targeting the prevention of depression and addressing the negative impact of unemployment.

The fifth strategy is reorienting health services. The charter emphasizes that health is a shared responsibility among individuals, community groups, health professionals, health service institutions and governments. The reorientation of health services includes attention to health research, changes in professional education and training and a change in the organization of health services including the needs of the individual as a whole person.

Globally, Donovan et al (2006) say that mental health promotion is attracting attention as health authorities become increasingly concerned with the rise in mental illnesses. However, Donovan et al (2006) add, there is little to guide health professionals in communicating to individuals and community groups what mental health promotion- in the sense of strengthening people's mental health and mental illness prevention- is about, or to guide population-wide interventions. In the absence

of these clear guidelines, any messages on mental health issued will be ineffective since they are uncoordinated and lack clear targets.

Furthermore, interventions to date have been largely directed towards those suffering mental health problems, early identification of at risk individuals or destigmatisation of the mentally ill (Davis & Tsiantis, 2005; European Commission, 2004; Jané-Llopis et al, 2005; Morrow et al, 2002; Saxena & Garrison, 2004). Since these interventions do not focus on entire populations, they may not be effective in enhancing knowledge among those populations. This study will evaluate communication campaign messages on mental health to find out their target audiences and the content of these messages.

Donovan et al (2006) report that while there are a number of school and worksite interventions aimed at building positive mental health rather than simply early detection and treatment of mental health problems (Durlak & Wells, 1997; Stewart et al, 2004), other than the Victorian Health Promotion Foundation's (VicHealth) Together We Do Better campaign (Walker et al, 2004) and California's 1982 Friends can be Good Medicine campaign (Taylor et al, 1984; Hersey et al, 1984), there is no published literature on population-wide mental health promotion campaigns that targeted people to be proactive about maintaining and building their own (and others') mental health. The WHO and World Federation for Mental Health (Saxena & Garrison, 2004) describe 35 programs from around the world, none of which is a comprehensive community-wide positive mental health promotion campaign. In Kenya, the situation is similar as there is no published literature on population-wide mental health promotion campaigns, or the existence of a program with a comprehensive community-wide positive mental health promotion campaign. This is a gap which could lead to the dissemination of ineffective messages on mental health.

Donovan et al (2006) assesses various mental health promotion campaigns and observes that the 'Together We Do Better' campaign seeks to promote community understanding of the importance of behavioural and social factors related to positive mental health; the 'Friends can be Good Medicine' campaign promoted the

importance of supportive personal relationships to physical and mental health; the VicHealth campaign has been limited in promotional scope, and to date there has been little published evaluation of its impact on the population at large and the California campaign ran for only one year, but did appear to have significant impact on relevant beliefs and behavioural intentions.

Rosen, Walter, Casey & Hocking (2000) and Frank et al (2006) say that there are fewer studies that have evaluated media campaigns that have targeted outcomes related to mental health, including general stigma about mental health. There is no available literature on evaluation of mental health communication campaigns in Kenya. Yet, evaluation is an essential component of any communication campaign (Valente, 2001). Valente (2001) defines evaluation as the systematic application of research procedures to understand the conceptualization, design, implementation, and utility of interventions. Evaluation research determines whether a program was effective, how it did or did not achieve its goals, and the efficiency with which it achieved them (Boruch, 1996; Mohr, 1992; Rossi, Freeman, & Lipsey, 1999; Shadish, Cook, & Leviton, 1991). Evaluation contributes to the knowledge base of how programs reach and influence their intended audiences so that researchers can learn lessons from these experiences and implement more effective programs in the future (Valente, 2001).

However, there are many barriers to evaluation. These include: the perceived cost of evaluation, the perception that research takes too much time and that it detracts from program implementation (Valente, 2001).

### **2.2.0 Theoretical framework**

Any effective health communication campaign has to be anchored on a relevant health communication theory. A relevant theory will help a health communicator to understand behavior that causes a health problem and the factors that influence it. The theory will also offer the health communicator a framework upon which an effective health communication campaign which will lead to behavior change among the target audience will be based. Atkin (2001) observes that the first step of any

communication campaign is to analyse the behavioural aspects of the health problem. Naidoo and Wills (2000) also observe that being able to predict behavior makes it easier to plan an intervention. Similarly, Tones and Tilford (1994) argue that understanding factors that influence behavior will help us to devise strategies and formulate methods that will achieve our health education goals.

Corcoran (2007) explains that theory enables the practitioner to predict the outcomes of interventions and the relationships between internal and external variables. She continues explaining that theories generate a series of ideas for a theory-led intervention to adopt. She adds that the purpose of theory is to enable the successful exchange of information between the health promoter and the target audience. In addition, Corcoran (2007) says, theory can help predict and explain behaviours, assist in the targeting of information and predict the effect that information will have and allow practitioners to predict why the audience may not undertake a behavior no matter how much assistance or encouragement is available. She also explains that models are derived from a simplified version of theory and can be used to guide the development of health promotion programmes.

The importance of theories and models is emphasized by Trifiletti et al. (2005) when they say that theories and models are useful in planning, implementing and evaluating interventions. However, literature indicates that many health communication interventions are not based on theory at all or use theory to guide certain stages of health communication interventions and not others. Kobetz et al. (2005) argue that theory is often used to inform the groundwork for health promotion, but is usually given less attention during the implementation of programmes. Jones and Donovan (2004) state that practitioners frequently ignore theory, failing to use and implement theory-based interventions. They argue that practitioners lack the skills and knowledge to operationalize the generic theories and models available. Other reasons why practitioners fail to use theories are lack of time, resources, expertise or evidence base to implement their knowledge (Corcoran, 2007).

Although theory is central to the success of health communication programmes, it has some limitations. Tones and Green (2004) highlight the concern that theory objectifies human experience and through this process deviates from the main health promotion ethos of holism and empowerment. This means that a person is seen as someone who can be measured, analysed, adjusted or directed. Airhihenbuwa and Obregon (2000) suggest that theoretical frameworks should not be rigid but flexible and therefore applicable to different contexts. They suggest that theory should be used as a means to guide the understanding of complex behavior. Parker et al. (2004) suggest that designing interventions that attempt to focus on all aspects of a model may be both daunting and unrealistic.

In addition, Corcoran (2007) says that the other criticism of the theory-based approach is that structural, political and environmental factors are excluded in many theoretical models. Behaviour and influences on behavior are altered by the wider societal context and theory often focuses on individuals only. This approach alone will not be effective without other enabling factors present to assist the facilitation of a behavior change. Corcoran (2007) adds that when designing communication campaigns, supportive environments are available to facilitate change. She argues that wider societal influences are sometimes difficult to control.

There are a number of theories that can and have been used in the communication of health. These include the theory of planned behavior, the health belief model, the extended parallel process model, the transtheoretical model, the process of behavior change, the symbolic interactionism theory and the social marketing theory.

### **2. 2.1 The theory of planned behaviour**

This theory is the modified version of the theory of reasoned action (Ajzen & Fishbein, 1980), where the additional variable of 'perceived behavioural control' has been added. The theory of reasoned action originally proposed that any intervention attempting to change behaviour should focus on beliefs, as these influence attitudes and expectations and in turn influence intentions and behaviours. It was then proposed that behaviours are not under 'volitional control' and the model was

revisited and expanded to include ‘perceived behaviour control’ (Rutter & Quine, 2002). The theory of reasoned action was revised to the theory of planned behaviour (Ajzen, 1991). The theory of planned behaviour follows the same hypothesis as the theory of reasoned action with the addition of ‘behavioural control’ as a determinant of behavioural intention and behavioural change.

The theory of planned behaviour states that the closest determinant of behaviour is the intention to perform (or not perform) that behaviour (Jackson et al., 2005; Lavin & Groarke, 2005). The theory of planned behaviour’s main determinant of behaviour is based on the person’s intention to perform that behaviour, and intention is determined by three factors:

- i. Attitude to the behaviour. The balancing of the pros/ cons of performing the behaviour or the risks/ rewards they associate with that choice.
- ii. Subjective norm. Social pressure from significant others, for example peers, media or family.
- iii. Perceived behavioural control. The perception that person has about their ability to perform the behaviour.

The simplified version of the model proposes that the more positive the attitude, supportive the subjective norm and higher the perceived behavioural control and the stronger the intention, the more likely it is that a person will perform that behaviour (Lavin & Groarke, 2005). The main reason why this theory was not used in this study is because it ignores other factors that may affect a person’s intention to perform behaviour. In the mental health context, these factors may include accessibility to mental health facilities, availability of psychiatrists and the cost of treatment. These are important factors that will influence intention to perform behaviour, such as going to hospital for treatment once one realises they are suffering from mental illnesses. They can act as barriers to the intention to perform behaviour.

### **2.2.2 The transtheoretical model**

The transtheoretical model, more frequently referred to as the 'stages of change model', is a cyclic model developed by Prochaska and Diclemente (1983). The model suggests that people change their behaviour at certain stages in life, rather than making one major change. During these incremental stages, they consider whether or not to make changes to their behaviour.

This cyclic model is based on the premise that people are at different levels of readiness to change and during the change process they move through a series of stages. People move from *precontemplation* (not ready to change) to *contemplation* (thinking of change), to *preparation* (getting ready to change), to *action* (performing the change), to *maintenance* (continuing the change), to *relapse* (abandoning changes and reverting to former behaviours).

The transtheoretical model's uses are extensive and the model has frequently been used in targeting intervention programmes and tailoring information to appropriate stages of change. Kidd et al. (2003) indicate that the transtheoretical model could provide precision when examining effectiveness and long-term efficacy in an intervention. It has also been said that it is a model that is 'simple, powerful, discerning and practical' (Brug et al., 2005). One of the most appealing aspects of the transtheoretical model to practitioners is its simplicity. Although originally designed for smoking interventions, the transtheoretical model has been used in areas that include promoting fruit and vegetable consumption (Ruud et al., 2005), injury prevention (Kidd et al., 2003) and physical activity (Marshal & Biddle, 2001).

There are three main reasons why this model was not used in this study. First, the model can be effectively applicable to a small target audience where each member's stage in the behaviour change process can be known. The communication campaigns for mental health held in Nairobi County and the rest of the country prior to and during World Mental Health Day do not focus on small target audiences. It will therefore be difficult to know the stage of behaviour change of each person when large populations are targeted. Secondly, the model focuses on people whose unhealthy behaviours expose them to health problems. Mental health problems are not always as a result of unhealthy behaviours. Some of the causes of mental

illnesses may not be as a result of unhealthy behaviours whose change can be explained using this model. Thirdly, the transtheoretical model is based on stages which might be difficult for individuals to identify and distinguish, especially in regard to mental health. Consequently, individuals and mental health practitioners might be inaccurate in identifying the stages where members of the target audience are in the process of behaviour change regarding mental health.

### **2.2.3 Process of behaviour change**

An alternative to the transtheoretical model is the process of behaviour change or perceived behavioural control model (Corcoran, 2007). It was developed by the Population Communication Services/ Centre for Communication Programs (2003) in the US. Corcoran (2007) explains that this model recognizes communication as a process where people can move between the stages of the process of behaviour change framework. Different messages are sought depending on where the person is on the process of behaviour change framework. The main difference between the process of behaviour change and the transtheoretical model is that the process of behaviour change is not seen as circular, but as a series of 'steps' where a person moves upwards towards the final goal. Corcoran (2007) explains that in the process of behaviour change people move through the following steps:

- i. Pre-knowledge. When a person is unaware of any risks or problems associated with their behaviour.
- ii. Knowledgeable. When a person is aware of the problem and of the risks attached to their behaviour.
- iii. Approving. When a person is in favour of changing their behaviour.
- iv. Intending. When a person is intending to take action to change their behaviour.
- v. Practicing. When the intended behaviour is being practiced.

- vi. **Advocating.** When the new behaviour is being implemented and when a person then advocates that behaviour to another.

This model was not used because of several reasons. First, just like the transtheoretical model, it explains behaviour change in terms of stages which might not be easily or accurately identified by members of the target audience. For instance, it might not be easy to distinguish between those who are at the stages of *approving* and *intending*. The second reason why this model was not used is that whereas it is applicable to small target audiences that can be easily described, it will be difficult to apply to large target audiences for mental health communication campaigns. Thirdly, the model does not acknowledge the possibility of those who have had knowledge of mental health not moving to the stages of *approving*, *intending* and *practicing*. The fourth reason is that the model does not explain the factors that lead to *approving*, *intending*, *practicing* and *advocating*. Finally, it is only in mental health problems caused by drug abuse where these steps of behaviour change may be followed. In mental illnesses caused by other factors such as major illnesses, the steps may not be useful.

#### **2.2.4 The extended parallel process model**

The extended parallel process model (EPPM) was developed by Witte (1992). Witte used Leventhal's parallel process model (1970) as the overall framework of the EPPM to differentiate between two processes, danger control and fear control. The theory adopts the original explanation of the protection motivation theory (PMT) that explains danger control processes that lead to message acceptance (Rogers, 1975, 1983) and defines and expands the fear control processes which lead to message rejection. These are the two sides of the parallel process model.

The theory posits that when a person is presented with a fear appeal depicting the components of threat (severity and susceptibility) and the components of efficacy (response efficacy and self-efficacy) the fear appeal initiates two appraisals in the cognitive encoder (individual) (Witte, 1992). First, persons appraise the perceived threat of the hazard. If the appraisal of threat results in moderate to high perceived

threat, then fear is elicited (Easterling & Leventhal, 1989; Lang, 1984) and people are motivated to begin the second appraisal, which is an evaluation of the efficacy of the second response. When the threat is perceived as low, there is no motivation to process the message further; efficacy is not evaluated and there is no response to the fear appeal (Witte, 1992).

Witte (1992) argues that when both perceived threat and perceived efficacy are high, danger control processes are initiated. He says that when people fear an applicable and significant threat, and when they perceive a response that would feasibly and effectively avert the threat, they are motivated to control the danger (protection motivation) by thinking of strategies to avert the threat (adaptive outcomes). When danger control processes are dominating, individuals respond to the danger, not to their fear. Conversely, when perceived threat is high, but perceived efficacy is low, fear control processes are initiated. The fear originally evoked by the personally relevant and significant threat becomes intensified when individuals believe they are unable to effectively deter the threat. Thus, they become motivated to cope with their fear (defensive motivation) by engaging in maladaptive responses such as denial. When fear control processes are dominating, individuals respond to their fear, not to the danger (Witte, 1992). Perceived threat determines the degree or intensity of the reaction to the message, while perceived efficacy determines the nature of the reaction.

Individual differences influence the appraisal of threat and efficacy. Each person evaluates the components of a message in relation to his or her prior experiences, culture and personality characteristics. Thus, the same fear appeal may produce different perceptions in different people, thereby influencing subsequent outcomes (Witte, 1992).

The study did not use this theory because of two reasons. The first reason is that the theory appears to suggest that people can only respond to messages if they feel individually threatened and they have the ability to respond effectively to avert the threat. The messages conveyed during communication campaigns for mental health do not only target those who are highly susceptible so that they can respond to the

fear based on their individual susceptibility and their response efficacy and self-efficacy. Young members of society might be targeted with messages of mental health problems affecting the elderly so that as care-givers they have knowledge of, among others, seeking treatment and managing these mental health problems. Similarly, adults might be targeted with messages of mental health problems affecting children and young people with the aim of improving their knowledge and ability as care-givers.

The second reason why the extended parallel process model was not used in this study is because it does not explain other factors that can lead to either danger control or fear control. It is not just prior experiences, culture and personality characteristics that can influence danger control or fear control as suggested by the model. For mental health problems, other factors would include availability or unavailability of the following: psychiatrists, psychiatric facilities, affordable medicine and medicine that do not have side effects. Another important factor will be the chances of one healing completely once they have received medication. In the health belief model such factors will be classified under the perceived benefits and perceived barriers.

### **2.2.5 Social marketing theory**

Baran and Davis (2009) say that social marketing theory is an administrative theory and it is source dominated. It assumes the existence of a benign information provider seeking to bring about useful, beneficial change. It gives these providers a framework for designing, carrying out, and evaluating information campaigns. In its most recent forms, it gives increasing attention to audience activity and the need to reach active audiences with information they are seeking. Target audiences are identified according to their information needs. Recommendations are made for stimulating audiences to seek information and for packaging and distributing information so that audiences will find it easy to get and use.

Social marketing theory represents an effort to increase the effectiveness of mass media- based information campaigns through greater understanding and

manipulation of aspects of societal and psychological factors. The theory does this by identifying a variety of social system-level and psychological barriers to the flow of information and influence through the mass media. It anticipates these barriers and includes strategies for overcoming them. The theory has several key features (Baran & Davis, 2009).

The first feature is methods for inducing audience awareness of campaign topics or candidates. A key first step in promoting ideas or candidates is to make people aware of their existence. New media channels- especially the Internet and World Wide Web- offer a means of overcoming barriers to the flow of information that arise over time.

The second feature is methods for targeting messages at specific audience segments most receptive or susceptible to those messages. By identifying the most vulnerable segments and then reaching them with the most efficient channel available, targeting strategies reduce promotional costs while increasing efficiency.

The third feature is methods for reinforcing messages within targeted segments and for encouraging these people to influence others through face-to-face communication. Even vulnerable audience members are likely to forget or fail to act on messages unless those messages are reinforced by similar information coming from several channels. Various strategies have been developed to make certain that multiple messages are received from several channels. These strategies include visits by change agents, group discussions, messages placed simultaneously in several media, and door-to-door canvassing.

The fourth feature is methods for cultivating images and impressions of people, products, or services. These methods are most often used when it is difficult to arouse audience interest. If people aren't interested in a topic, it is unlikely that they will seek and learn information about it. Lack of interest forms a barrier against the flow of information. But it is still possible to transmit images. The most prominent method used to cultivate images is image advertising in which easily recognizable,

visually compelling images are presented. Relationships are implied between these and the objects being promoted.

The fifth feature is methods for stimulating interest and inducing information seeking by audience members. Information seeking occurs when a sufficient level of interest in ideas or candidates can be generated. Various methods have been developed to provide easy access to those forms of information serving the campaign planners' interests once the information seeking has been induced.

The sixth feature is methods for inducing desired decision making or positioning. Once people are aware and informed, or at least have formed strong images or impressions, they can be moved toward either a conscious decision or an unconscious prioritization or positioning. Media messages can be transmitted through a variety of channels and used to highlight the value of choosing a specific option or prioritizing one product, service, or candidate relative to others. Change agents and opinion leaders can also be used, though they are more expensive.

Methods for activating audience segments, especially those who have been targeted by the campaign is the seventh feature. Ideally, these audiences will include people who are properly positioned and have decided to act but have not yet found an opportunity. Many communication campaigns fail because they lack a mechanism for stimulating action. A variety of techniques can be used to activate people, including change agents, free merchandise, free and convenient transportation, free services, moderate fear appeals, and broadcast or telephone appeals from high-status sources.

The social marketing theory was not used in this study because of various reasons. The first reason is that it is source-dominated (Baran & Davis, 2009). Effective health communication campaigns should be audience-centred. They must involve the audience in identifying health issues that need to be addressed and how health messages should be designed and disseminated to avoid or minimize resistance.

The second reason is that it does not consider ends of campaigns (Baran & Davis, 2009). Inability to consider the outcomes of health communication campaigns means

that the campaigns lack evidence base, one of the attributes of effective health communication campaigns. This is an important attribute as it offers useful lessons to ensure the success of future health communication campaigns.

The third reason is that the theory has difficulty addressing cultural barriers to influence (Baran & Davis, 2009). Culture plays an important role in influencing people's health behaviours. It is particularly very important in mental health because people's attitudes towards mental health are influenced by their cultural beliefs about the causes, treatment and healing of mental illnesses. Therefore, cultural perspectives to a health issue should be identified and strategically addressed to avoid message rejection. This constitutes the attribute of cultural competence (US Office of Disease Prevention and Health Promotion, 2000).

#### **2.2.6 Symbolic interactionism**

Herbert Blumer coined the term symbolic interactionism (Griffin, 2009). Craig and Muller (2007) assert that symbolic interactionism is the study of "how communication shapes individual identities, making both individuality and social community possible". Blumer states three core principles of symbolic interactionism that deal with meaning, language and thought. These premises lead to conclusions about the creation of a person's self and socialization into a larger community.

First, Blumer bases symbolic interactionism on the premise that humans act towards people or things on the basis of the meanings they assign to those people or things (Griffin, 2009; Lindlof & Taylor, 2011). Meaning is seen as the construction of social reality. Pragmatism viewed reality as indeterminate: the world that we perceive and act in consists of multiple, emergent realities that are always in the process of changing. These realities are formed in negotiations conducted between the self and various people, objects, and events (Mead, 1934). This theory was used in this study to explain that people's knowledge, attitudes and responses towards mental illnesses and the mentally ill are as a result of the meanings they have assigned to them. A society in which people have little or no knowledge of mental health issues will assign wrong meanings to mental illnesses and the mentally ill.

Based on this social reality, people will have discriminatory attitudes and responses towards mental illnesses and the mentally ill. Mental illnesses and the mentally ill will be stigmatized. On the other hand, a society where people have knowledge of mental health will not stigmatize mental illnesses and the mentally ill. This is because people will assign correct meanings to mental illnesses and the mentally ill. In such a society, people will have understanding and caring attitudes and responses towards mental illnesses and the mentally ill since their social reality is constructed on knowledge.

Blumer's second premise is that meaning arises out of the social interaction that people have with each other (Griffin, 2009). Griffin explains that meaning is not inherent in objects or preexistent in a state of nature. It is negotiated through the use of language- hence the term symbolic interactionism. In this study, it is argued that the meanings that individuals give mental health issues are as a result of social interactions. The stigma that individuals have towards mental health problems is as a result of their interactions with other individuals in society.

Symbolic naming is the basis for human society (Griffin, 2009). Symbolic interactionism is used to explain that people's knowledge of mental illnesses and attitudes towards the mentally ill are shaped by the names they have given them. These names influence their perceptions and attitudes towards mental illnesses and the mentally ill. Furthermore, these attitudes and perceptions are influenced by people's interactions with each other through language. This study argues that if people are exposed to adequate knowledge of what mental illnesses are and what causes them, they will change their attitudes and perceptions towards the mentally ill and stop using discriminatory and condemnatory language towards them (Kweyu, 2012).

Blumer's third premise is that an individual's interpretation of symbols is modified by his or her own thought processes. Symbolic interactionists describe thinking as an inner conversation, a process called inner dialogue minding (Griffin, 2009). Griffin (2009) says that minding is the pause that is reflective. It's the two -second delay while we mentally rehearse our next move, test alternatives and anticipate others'

reactions. To do this we need language. Language is the software that activates the mind (Griffin, 2009).

Symbolic interactionism was used in this study to argue that people's knowledge of mental illnesses and attitudes towards the mentally ill are shaped and determined by their thought processes. Consequently, people's attitudes are influenced by those of others when faced with similar circumstances. They imagine how others would behave in the same situation and do exactly that. This study therefore argues that if communication campaigns on mental health are effectively designed to change people's attitudes towards mental health issues, people's thoughts and language will change and they will also influence other people to behave exactly that way.

After understanding that meaning, language and thought are tightly interconnected, the concept of the self becomes clear (Griffin, 2009). People paint their self-portraits with ideas that come from taking the role of the other- imagining how we look to another person. During interaction, participants ascertain each other's intentions through the use of significant symbols (Lindlof & Taylor, 2011). Significant symbols are verbal or nonverbal gestures that implicitly arouse in an individual the response which they explicitly arouse, or are supposed to arouse, in the individuals whom they are addressing (Mead, 1934). Using significant symbols involves more than signaling our internal state to others; it also evokes in us the anticipated response of the other. We momentarily imagine how we are seen.

The concept of the self is important in this study as people's knowledge of mental illnesses and attitudes towards mental health and the mentally ill are socially constructed. If others have profound knowledge of mental health and their attitude towards the mentally ill is nondiscriminatory, then one will equally seek more knowledge and be nondiscriminatory towards the mentally ill in order to fit in that society.

The last concept in symbolic interactionism is that of community. Community is the generalized other. This is the composite mental image a person has of his or her 'self' based on community expectations and responses (Griffin, 2009). This study

argues that people's knowledge of mental health and attitudes towards the mentally ill are based on their communities' expectations and responses. If the community expects individuals not to stigmatize mental illnesses or discriminate against the mentally ill, then the individuals will respond by having positive and non-discriminatory attitudes towards mental illnesses and the mentally ill.

### **2.2.7 The health belief model**

The Health Belief Model is one of the most commonly used models of health behavior change. It was developed by Becker (1974) from the work of Rosenstock (1966) as an overarching framework on how to promote preventive behaviours. The model enables the examination of health beliefs and perceptions and encourages the assessment of their influence on preventive health behavior (Hester & Macrina, 1985). It can therefore be used as a pattern to evaluate or influence individual behavioural change (Corcoran, 2007).

The Health Belief Model includes six constructs to help predict whether people will take action to prevent, screen for, and control illness (WHO, 2012). These constructs are: perceived susceptibility, perceived severity, perceived benefits, perceived barriers, cues to action and self-efficacy (Corcoran, 2007).

Overall, perceived barriers have been the strongest predictor for whether or not individuals engage in health protective behavior, followed by perceived susceptibility (Janz & Becker, 1984). Janz and Becker (1984) found that the perceived severity was the weakest predictor across studies employing the Health Belief Model. The combination of perceived susceptibility and severity provides the motivation for action, and the comparison of perceived benefits to perceived barriers provides the means or pathway to action. Thus the stronger the perception of susceptibility, severity, and benefits and the weaker the perception of barriers, the greater the likelihood that health protective actions would be taken (Janz & Becker, 1984).

The HBM also considers ‘modifying factors’ important to behavior change. These include demographic variables, socio-psychological variables and structural variables that influence how a person perceives the disease severity, threats and susceptibility. Factors such as age, gender, peer pressure or prior contact with the disease also impact on the decision-making process (Corcoran, 2007).

Since its development, the model has been empirically tested as the basis for educational campaigns on a number of health behaviours including contraceptive behaviors (Hester & Macrina, 1985), cervical cancer screening (Burak & Meyer, 1997), and healthy eating habits (Deshpande, Basil & Basil, 2009).

Health belief model was used in this study to argue that if people are exposed to mental health promotion campaign messages that inform them about their susceptibility to mental illnesses, the severity of mental illnesses, the benefits of taking action to reduce risk or seriousness, the barriers involved such as stigma, factors that activate change, and confidence in one’s ability to take action, then they will embrace behaviours to ensure their own and others’ mental health. Communication campaigns for mental health were analysed for evidence of these concepts.

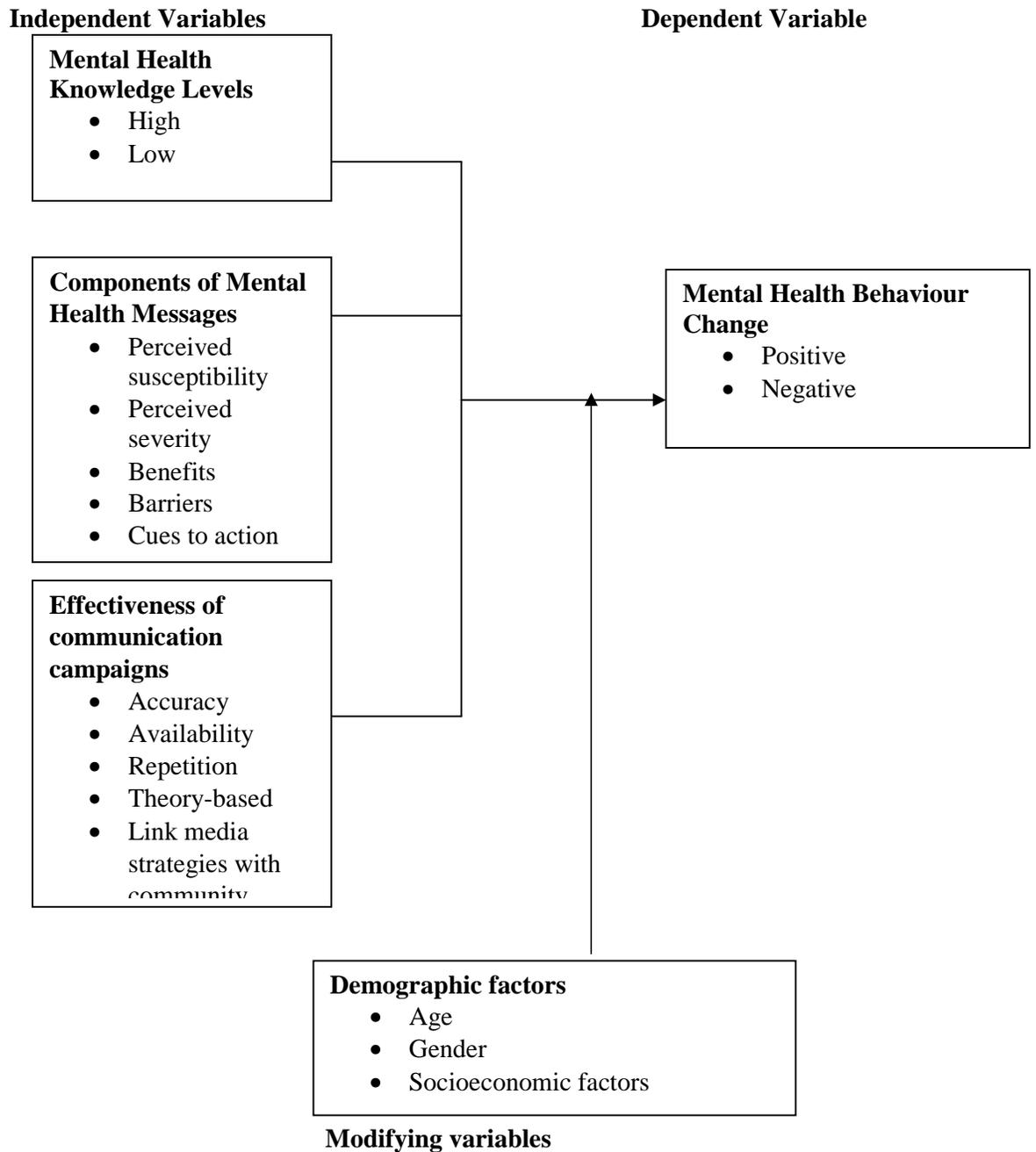
### **2.3. Conceptual framework**

The knowledge, attitudes and beliefs that people have regarding mental illnesses and the mentally ill are as a result of the meanings they have assigned them. These meanings are expressed in the language that people use which reflects their level of knowledge, attitudes and beliefs. The knowledge, attitudes and beliefs of a community influence individual thoughts. They are also shaped by one’s understanding of self. One’s portrait of oneself in relation with knowledge, attitudes and beliefs on mental illnesses and the mentally ill are closely related to one’s community’s portrait.

If knowledge levels are low, stigma is high. Consequently, the meanings people have assigned mental illnesses and the mentally ill are discriminatory. They will not

perceive their susceptibility to mental illnesses, the severity of those illnesses and the benefits of obtaining knowledge of mental illnesses or even seeking treatment. They will see barriers such as mental illnesses not being treatable in hospitals. Failure to take appropriate action such as seeing a psychiatrist will be as a result of lack of confidence due to lack of knowledge. And if all this happens even after communication campaigns for mental health have taken place, then the communication campaigns are ineffective and people either reject, do not comprehend or are unaware of the messages of those communication campaigns. Factors that can lead to rejection, lack of comprehension or awareness of health messages include low reach, lack of repetition of the message, the message not being timely, cultural inappropriateness, the language used being too technical, age, gender, peer pressure and prior contact with the disease (Corcoran, 2007).

However, if effective communication campaigns are conducted, knowledge levels will increase and positive attitudes and beliefs about mental illnesses and the mentally ill will be embraced. This study therefore had three variables: communication campaigns, modifying factors and communication outcomes. Communication campaigns were the independent variable; knowledge levels were the dependent variables while modifying factors included age, gender and socioeconomic status. This relationship is illustrated in the conceptual framework in Figure 2.1 below.



**Figure 2.1: The conceptual framework**  
 Source: Researcher 2014

#### **2.4. Knowledge levels**

The levels of knowledge of a target audience are likely to influence their health behaviour. When the levels of knowledge of a health issue are high, the majority of the members of the audience are likely to have positive health behaviour. However, if the levels of knowledge are low, the majority of the members of the target audience are likely to have negative health behaviour (Mupepi et al., 2011; Logan et al., 2015). Similarly, if the levels of knowledge of mental health are high, mental health behaviour will be positive. Positive mental health behaviour includes avoiding factors that could lead to mental illnesses such as drug and alcohol abuse, seeking treatment for mental illnesses from psychiatrists, and not discriminating against the mentally ill. On the other hand, if the levels of knowledge are low, mental health behaviour will be negative. Negative mental health behaviour involves stigmatizing mental illnesses and the mentally ill, exposing oneself to factors that could cause mental illnesses, not seeking treatment for mental illnesses or going to witchdoctors to seek treatment and believing that mental illnesses are caused by witchcraft or curses. Therefore designers of mental health communication campaigns need to establish the knowledge levels of target audiences to predict their mental health behaviours and formulate messages which will be effective in promoting behaviour change.

#### **2.5. Components of mental health messages**

Mental health messages which will promote mental health behaviour change will have certain components. Based on the health belief model, these components are perceived susceptibility, perceived severity, perceived benefits, perceived barriers, cues to action and self-efficacy (Corcoran, 2007). Messages based on these components will increase knowledge of mental health about what mental illnesses are, what causes them, who is vulnerable, what are their symptoms and effects, availability of treatment, the importance of preventing mental illnesses and seeking treatment, factors that might prevent one from preventing mental illnesses or seeking treatment and the ease with which prevention and treatment can be sought. If the

target audience is given messages which have these components, it will be influenced to adopt positive mental health behaviour change.

## **2.6. Effectiveness of communication campaigns**

Effective health communication campaigns have the following attributes: accuracy, availability, balance, consistency, cultural competence, evidence base, reach, reliability, repetition, timeliness and understandability (US Office of Disease Prevention and Health Promotion, 2000). In addition, they are more likely to do the following: use mass communication and behaviour change theory as a basis for campaign design, use formative research to develop messages and inform campaign strategy, and link media strategies with community programs thus reinforcing the media message and providing local support for desired behaviour changes (Wallack & Dorfman, 2001). In addition, the messages communicated and the communication strategies used should be based on target audience characteristics and needs. Communication campaigns for mental health will lead to positive behaviour change if they have the above attributes.

## **2.7. Demographic factors**

According to the health belief model, some of the modifying factors that can influence health behaviour change are age, gender, socioeconomic status and peer pressure (Corcoran, 2007). This study sought to investigate whether the age of the members of the target audience, their gender and socioeconomic status influence their level of knowledge of mental health and their mental health behaviours. Other demographic factors that influence health behaviour change are race, geographical location and level of education (Logan et al., 2015; Mupepi et al., 2011).

## **2.8. Mental health behaviour change**

Mental health behaviour change can be positive or negative. This study argues that mental health behaviour change depends on the knowledge levels of the target audience, the nature of messages communicated during mental health

communication campaigns, the nature of the communication campaigns and the demographic factors which will act as modifying variables. The target audience is likely to have positive mental health behaviour if the target audience has higher levels of knowledge of mental health, if communication campaigns for mental health are effectively designed and conducted, if the messages communicated are clearly formulated and targeted, and depending on favourable demographic factors. On the other hand, the target audience is likely to have negative mental health behaviour if the levels of knowledge of mental health are low, the communication campaigns are ineffectively designed and conducted, the messages disseminated are poorly formulated and not targeted and unfavourable demographic factors are in present.

## **2.9. Critique of the existing literature relevant to the study**

Though there is literature on mental health communication campaigns from other parts of the world (Walker et al., 2004; Taylor et al., 1984; Hersey et al., 1984), there is none in Kenya that focuses on the communication campaigns for mental health, their goals and objectives, their impact and how they can be improved. Much of the literature available which is relevant to the study is from a medical perspective. This poses challenges in the comparison of communication campaigns on mental health carried out in Kenya with those carried out in other parts of the world in order to establish the impact of these campaigns and the communication approaches used.

Similarly, very little is available in terms of studies on prevalence of mental illnesses in Kenya (Ndeti et al., 2009; Khasakhala et al., 2012). Lack of substantial literature on the prevalence of mental illnesses in Kenya makes it difficult for one to clearly express the magnitude of the problem and what factors are responsible for that. It also makes it impossible for one to know the most affected segment of the population and whether communication campaigns for mental health target them.

Furthermore, there are few studies on evaluation of mental health communication campaigns worldwide (Rosen, Walter, Casey & Hocking, 200; Frank et al., 2006). There is no literature on evaluation of mental health communication campaigns in Kenya. This would have been useful to this study in terms of making comparisons

between communication campaigns and establishing factors that make them successful or unsuccessful in increasing levels of knowledge.

### **2.10. Research gaps**

This study identified three main gaps in the literature available on mental health communication campaigns. The researcher was not able to trace published literature on population-wide mental health promotion campaigns (Saxena & Garrison, 2004). Consequently, mental health communication researchers and campaigners lack relevant evidence on planning, implementing and evaluating successful mental health communication campaigns. This study sought to establish the impact of unavailability of such literature on communication campaigns for mental health held in Nairobi County.

Secondly, this study identified the gap that exists in literature that interventions have been largely directed towards those suffering from mental health problems, early identification of at risk individuals or destigmatization of the mentally ill but not entire populations (Davis & Tsiantis, 2005; European Commission, 2004; Jane-Llopis et al., 2005; Morrow et al., 2002; Saxena & Garrison, 2004). The study sought to find out whether communication campaigns for mental health held in Nairobi County are also directed towards those suffering from mental health problems, early identification of at risk individuals or destigmatization of the mentally ill.

The third gap that this study identified is that few studies have evaluated communication campaigns that have targeted outcomes related to mental health (Rosen, Walter & Hocking, 2000; Frank et al., 2006). This study sought to establish whether there is literature on evaluation of mental health communication campaigns in Nairobi County and whether such evaluation has been used to design and implement more effective communication campaigns.

### **2.11. Summary**

This study focused on literature on what mental health constitutes and explained what mental health problems and mental disorders are. It also explained the magnitude of mental illnesses worldwide. The study further discussed the types of mental problems and their symptoms. It also discussed the causes of various mental illnesses. In order to get a clear picture of the mental health situation in Kenya, the study focused on the prevalence of mental illnesses in Kenya and the prevalence of mental illnesses among young people. The other areas that the study discussed were promotion of mental health worldwide, the theoretical framework and the relevance of the theories of symbolic interactionism and the health belief model to this study.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.0 Introduction**

In this chapter, the methodology that was used in carrying out the study is described. First, the chapter focuses on the research design which was used in the study. A definition of the research design is given and its suitability for the study explained. The advantages of the research design are also explained. The second area in this chapter is the site of the study. It is identified and its appropriateness for the study explained. The study population is identified next and reasons given for its selection. After the study population, the section that follows is on sampling techniques. The sampling techniques are clearly explained and reasons given for their selection. This is followed by the section on sample size where explanations are given on why and how it was arrived at. The next section identifies the research instruments for this study and gives reasons for their choice. Following research instruments is a section on methods of data collection. The methods of data collection are identified, reasons for their selection given and procedures explained. The section also distinguishes between qualitative and quantitative data. Besides, the advantages and disadvantages of each method of data collection and each type of data collected are explained. The pilot study section comes after methods of data collection and analysis. Explanations are given on what happened during the pilot study and how beneficial it was to the study. The next section is on data presentation and analysis where the procedures used are explained. The last section is on ethical considerations. This section explains the procedures that the study followed before data was collected.

#### **3.1 Research design**

The study used cross-sectional research design. Bryman (2012) and Robson (2011) say that a cross-sectional design entails the collection of data on more than one case and at a single point in time in order to collect a body of quantitative or quantifiable

data in connection with two or more variables, which are then examined to detect patterns of association. Nachmias and Nachmias (1996) explain that a cross-sectional research design has two advantages. One, it allows researchers to carry out studies in natural, real-life settings using probability samples, thus increasing the external validity of their studies. Two, the studies do not require the random assignment of individual cases to comparison groups. This enables researchers to study situations where the assignment of individuals to either a control group or an experimental group might be unethical or impossible.

Cross-sectional design was the most appropriate research design for this study since relevant data was collected from one selected county using survey research and content analysis. It was also the most appropriate because relevant data was collected from informants and respondents with different backgrounds, experiences and knowledge levels regarding mental health issues and how they are communicated. The design ensured that the data collected was rich and comprehensive. Furthermore, the design enabled the researcher to compare the data collected about communication campaigns for mental health and their impact on knowledge levels and to draw appropriate conclusions.

### **3.2 Site of the study**

The study was conducted in Lang'ata District in Nairobi County. Lang'ata District was selected because it has the largest informal settlement in Kenya, Kibera ([www.unhabitat.org](http://www.unhabitat.org)). The levels of poverty are high in this informal settlement. Studies indicate that mental illnesses are prevalent among people living in poverty (Palmer, 2011; WHO, 2010; Othieno et al, 2008; Jané-Llopis & Braddick, 2008; Patel, 2005; Patel & Jané-Llopis, 2005; Barry & McQueen, 2005; Bhugra, 2004; Melzer, Fryers & Jenkins, 2004; Danso, 2002). Furthermore, drug abuse, rape and various forms of violence are prevalent in informal settlements. All these are factors that cause mental illnesses (WHO, 2008; Sclar, Galau & Carolini, 2005).

This site was therefore selected because its nature would provide respondents who are more vulnerable to mental illnesses because they are exposed to some of the

causes of mental illnesses. They are therefore the ones who should be targeted more by communication campaigns for mental health to increase their levels of knowledge, reduce stigma associated with mental illnesses, lower the prevalence rates of mental health problems and increase the rates of those who seek treatment for mental illnesses. The study sought to establish whether communication campaigns for mental health were conducted in this site, the frequency of conducting these communication campaigns and their impact in increasing knowledge levels. The data obtained was then generalized to the entire country.

### **3.3 Study population**

The study population was both male and female students in public secondary schools in Lang'ata District. Both male and female students were sampled for this study to establish whether knowledge levels were based on gender differences. Secondary school students were selected because they are at an adolescent stage which is considered to be among the most vulnerable groups to mental health disorders and at a stage when interventions can be more effective to prevent development of adult and chronic mental health problems (Seroczynski, Jacques & Cole, 2003; Wunderlich, Bronisch, Wittchen & Carter, 2001; Rickwood, 2010; McGorry et al., 2007; Kessler et al, 2005).

Lang'ata district has five public secondary schools. The total number of students enrolled in all the five public secondary schools was 2,600. Out of these, there were 1,844 boys and 756 girls (Nairobi County Education Office, 2013). The schools are Lang'ata High School, Lang'ata Barracks, Raila Educational Centre, Olympic High School and Karen C.

Additional data was collected from psychiatrists, psychiatric nurses and materials used for communication campaigns for mental health from Mathari National Teaching and Referral Hospital. Mathari National Teaching and Referral Hospital was purposively sampled because it is the largest mental hospital in Kenya and communication campaigns for mental health in Kenya have since 1992 been conducted in hospitals that have mental health facilities (Kiima & Jenkins, 2010).

Being the largest mental health hospital in Kenya and because of its status as a national teaching and referral hospital, Mathari was the most appropriate mental health hospital from which to collect data from psychiatrists and psychiatric nurses on the messages communicated during communication campaigns for mental health and how they are communicated. There are 18 psychiatrists and 70 psychiatric nurses in the hospital ([www.kenyapsychiatristsassociation.org](http://www.kenyapsychiatristsassociation.org); Kiima & Jenkins, 2010).

### 3.4 Sample size

Since Lang'ata District had a total population of 2,600 secondary school students, a sample size of 334 respondents was selected. Mugenda and Mugenda (2003) say that in social science research the following formula can be used to determine the sample size:

$$n = \frac{Z^2 pq}{d^2}$$

Where:

n= the desired sample size (if the target population is greater than 10, 000).

z= the standard normal deviate at the required confidence level.

p= the proportion in the target population estimated to have characteristics being measured.

q= 1-p

d= the level of statistical significance set.

If there is no estimate available of the proportion in the target population assumed to have the characteristics of interest, 50% should be used (Mugenda & Mugenda, 1983). Therefore, to get the value of n, Mugenda and Mugenda (2003) explain that the z –statistic of 1.96 is used. The sample size will be:

$$\begin{aligned} n &= \frac{(1.96)^2 (.50) (.50)}{(.50)^2} \\ &= 384 \end{aligned}$$

Mugenda and Mugenda (2003) and Ndati (2013) say that if the target population is less than 10,000, the required sample size will be smaller. In such cases, the final sample estimate (nf) is calculated using the following formula:

$$nf = \frac{n}{1 + (n/N)}$$

Where:

nf= the desired sample size (when the population is less than 10,000)

n= the desired sample size (when the population is more than 10,000)

N= the estimate of the population size

The sample size therefore was:

$$nf = \frac{384}{1 + (384/2600)}$$

$$nf = 334$$

Where:

n is the population of boys or girls (1844 boys or 756 girls)

N is the total population (2600)

Therefore, the number of boys sampled was:

$$334/2600 \times 1844 = 237 \text{ boys}$$

Similarly, the number of girls sampled was:

$$334/2600 \times 756 = 97 \text{ girls}$$

This therefore meant that the sample size of 334 respondents consisted of 237 boys and 97 girls. To obtain this sample size, each school had to contribute a certain portion depending on its enrollment. Table 3.1 below presents the total number of students in each of the five public schools in Langata District in the year 2013.

**Table 3.1: Number of students in public schools in Lang’ata District**

Name of school	Number of Boys	Number of Girls
Lang’ata High School	839	-
Lang’ata Barracks	201	112
Raila Educational Centre	255	96
Olympic High School	474	351
Karen C	75	197
Total	1844	756

The sample size from each of the five schools was calculated as follows: Total number of boys in the school/ Total number of boys in the five schools × Total number of boys sampled

Or

Total number of girls in the school/ Total number of girls in the five schools × Total number of girls sampled

Therefore from each school the following is the sample size that was obtained:

- i. Lang’ata High School:  $839/1844 \times 237 = 108$  boys
- ii. Lang’ata Barracks:  $201/1844 \times 237 = 26$  boys  
 $112/756 \times 97 = 15$  girls
- iii. Raila Educational Centre:  $255/1844 \times 237 = 33$  boys  
 $96/756 \times 97 = 12$  girls
- iv. Olympic High School:  $474/1844 \times 237 = 61$  boys  
 $351/756 \times 97 = 45$  girls
- v. Karen C:  $75/1844 \times 237 = 9$  boys  
 $197/756 \times 97 = 25$  girls

Since from Form 1 to Form 4 there are four classes, respondents were selected from each class. The formula used was:

$$x/4 = z$$

where

x is the number of boys or girls sampled from a school

4 represents the number of classes in the secondary schools from Form 1 to Form 4

z is the number of boys or girls sampled from a class

This formula applied for both boys and girls.

Since there were 18 psychiatrists and 70 psychiatric nurses in Mathari Hospital ([www.kenyapsychiatristsassociation.org](http://www.kenyapsychiatristsassociation.org); Kiima & Jenkins, 2010), 6 psychiatrists and 7 psychiatric nurses were randomly sampled for the study. This number was arrived at not only because of the small number of psychiatrists and psychiatric nurses at the hospital, but also because of their busy schedule.

In addition, the number of printed documents used for communication campaigns for mental health in the county from the year 2011 to 2013 was established and a representative sample selected. These documents were obtained from Mathari Hospital in Nairobi County.

### **3.5 Sampling techniques**

Purposive sampling technique was used to sample the district in which the study was conducted. Therefore, Lang'ata District was purposively sampled because it has the largest informal settlement in the country ([www.unhabitat.org](http://www.unhabitat.org)). Purposive sampling is a non-probability form of sampling. The goal of purposive sampling is to sample cases/participants in a strategic way so that those sampled are relevant to the research questions that are being posed (Robson 2011; Bryman, 2012).

In selecting respondents, informants and documents that were analyzed, stratified random sampling was used. Stratified random sampling involves dividing the population into a number of groups or strata, where members of a group share a particular characteristic or characteristics. There is then random sampling within the strata (Robson, 2011; Bryman, 2012). Stratified random sampling was used because it has the following advantages: it ensures that the resulting sample will be distributed in the same way as the population in terms of the stratifying criterion, it will be easy to identify and allocate units to strata and, more than one stratifying criterion can be used (Robson, 2011; Bryman, 2012).

Respondents and informants were randomly sampled from the following strata which were easy to identify: secondary school students, psychiatric specialists and psychiatric nurses. A proportionate stratified sample was used as the sample size was drawn from each stratum (n) proportional to the population size of the stratum (N) (Frankfort-Nachmias & Nachmias, 1996).

The communication materials used in the study were sampled purposively. These communication materials were written. Written documents include posters, flyers and pamphlets (Robson, 2011). The campaign materials were sampled from Mathari Hospital and had been used to mark World Mental Health Day (Kiima & Jenkins, 2010). The data collected from these materials was evaluated for its adherence to the attributes of effective health communication campaigns and to the components of symbolic interactionism and health belief model.

The varied nature of the sample from which data was collected ensured that the data collected made the study comprehensive. It also ensured that data was collected from all possible channels used in mental health communication campaigns.

## **3.6 Data collection**

### **3.6.1 Quantitative data**

Quantitative research includes designs, techniques and measures that produce discreet numerical or quantifiable data. Random sampling is done to ensure representativeness of the sample (Mugenda & Mugenda, 2003). This study used stratified random sampling to ensure the data collected from secondary school students was representative.

Babbie (2001) observes that quantitative data has the advantages that numbers have over words as measures of some quality. He further explains that quantification makes our observations more explicit. It also can make it easier to aggregate, compare and summarize data. Babbie adds that quantitative data opens up the possibility of statistical analyses, ranging from simple averages to complex formulas and mathematical models.

Quantitative data was collected using self-completion questionnaires which were administered to a representative number of secondary school students. The self-completion questionnaire is also called self-administered questionnaire (Bryman, 2012). The researcher handed out the questionnaire to a sample population of secondary school students who then completed and returned it. The questionnaire had questions about communication campaigns for mental health and the respondents' knowledge levels of mental health. The questions were meant to evaluate the effectiveness of the communication campaigns for mental health in enhancing knowledge among the target population. They therefore focused on various aspects of effective health communication campaigns such as reach, repetition, timeliness and understandability. Whereas the first part of the questionnaire targeted all the secondary school students, the second part targeted only those who had attended communication campaigns for mental health. This enabled the researcher to establish the number of secondary school students who had attended communication campaigns for mental health. The questionnaire also had

questions based on the components of the health belief model and the symbolic interactionism theory. These questions were used to establish whether the communication campaigns for mental health are theory-based.

Use of a questionnaire gave the study several advantages. First, questionnaire-based surveys have the following advantages: high amounts of data standardization, they may be adapted to collect generalizable information from almost any human population and they provide a relatively simple and straightforward approach to the study of attitudes, values, beliefs and motives (Robson, 2011). Secondly, self-completion questionnaires are cheaper and quicker to administer, there is absence of interviewer effects, there is no interviewer variability and there is convenience for respondents (Bryman, 2012).

Additional data was collected from printed documents used during communication campaigns for mental health through content analysis. Kerlinger (2000) defines content analysis as a method of studying and analyzing communication in a systematic, objective, and quantitative manner for the purpose of measuring variables. Berg and Lune (2012) define content analysis as a careful, detailed, systematic examination and interpretation of a particular body of material in an effort to identify patterns, themes, biases, and meanings. Typically, content analysis is performed on various forms of human communications; this may include various permutations of written documents such as chapters, articles and speeches, and media materials such as photographs, motion pictures or videotape, and audiotapes (Berg & Lune, 2012; Rubin, Rubin & Piele, 2005).

Berg and Lune (2012) explain that when using a content analysis strategy to assess written documents, researchers must first decide at what level they plan to sample and what units of analysis will be counted. They observe that sampling may occur at any or all of the following levels: words, phrases, sentences, paragraphs, sections, chapters, books, writers, ideological stance, subjects and themes, or similar elements relevant to the context. They add that the message should be analyzed in terms of explicit themes, relative emphasis on various topics, amount of space or time devoted to certain topics, and numerous other dimensions. This study analyzed newsletters

and leaflets used for communication campaigns for mental health from 2011-2013. Sampling was done at word, phrase, sentence, paragraph, sections and theme level. The documents were analyzed to establish whether the messages they conveyed adhered to the attributes of effective health communication campaigns, they were relevant to the mental health theme of the year and whether they were sufficient based on the amount of space devoted to the mental health theme.

Mugenda and Mugenda (2003) explain that content analysis has the following advantages: researchers are able to economize in terms of time and money because data collection is not as tedious as in most other studies, errors which arise during the study are easier to detect and correct and the method has no effect on what is being studied. Mugenda and Mugenda (2003) observe that content analysis has two disadvantages: it is limited to recorded communication and since the information is already recorded, it is difficult to ascertain the validity of the data.

### **3.6.2 Qualitative data**

Mugenda and Mugenda (2003) explain that qualitative research includes designs, techniques and measures that do not produce discrete numerical data. More often the data are in the form of words rather than numbers and these words are grouped into categories. Mugenda and Mugenda (2003) observe that there are three methods usually used to collect qualitative data. The first method is direct observation where the required behavior is observed in a particular setting. The second method is participant observation where data are collected by an observer who is a regular, full time participant in the activities being observed. The third is the interview method. This is face-to-face interaction between the researcher and the subjects. The researcher uses an interview schedule.

The qualitative research approach has some advantages. Mugenda and Mugenda (2003) argue that qualitative research is advantageous as it permits research to go beyond the statistical results usually reported in quantitative research. Similarly, Babbie (2001) argues that qualitative data can be richer in meaning than quantified data. He argues that meanings can be lost in quantitative calculations. Mugenda and

Mugenda (2003) also argue that human behavior is explained best by using qualitative research. Human phenomena that cannot be investigated by direct observation such as attitudes and other emotions are best studied using the qualitative methods (Mugenda & Mugenda, 2003). Qualitative research approach was suitable for this study because it was investigating people's knowledge of mental health issues and how this influences their attitudes and behaviours towards mental illnesses and the mentally ill.

On the other hand, qualitative research has a disadvantage. Babbie (2001) argues that qualitative data can have the disadvantages of purely verbal descriptions. He observes that one such disadvantage is ambiguity. This view is also shared by Mugenda and Mugenda (2003) who also add that data analysis in the qualitative research approach is time consuming.

Qualitative data was collected using semi-structured interviews. Psychiatric specialists and psychiatric nurses were interviewed. Semi-structured interviews were used because of the variety of respondents involved in this study which implies that there was a variety of responses (Berg & Lune, 2012). The advantages of these interviews were that open-ended questions were asked and the interviewer had substantial freedom to probe far beyond the answers to the prepared standardized questions (Berg & Lune, 2012). The interviewer also paraphrased questions when that was needed to obtain substantial information (Baxter & Babbie, 2003; Bryman, 2012).

Through the semi-structured interviews, data on the effectiveness or ineffectiveness of the communication campaigns for mental health conducted was collected. The interviews elicited data on the messages conveyed during communication campaigns for mental health and the attributes of the communication campaigns.

Using both qualitative and quantitative methods was advantageous to this study in the following ways: some objectives were better assessed using qualitative methods while others were better assessed using quantitative methods; both methods supplement each other as qualitative methods provide the in-depth explanations

while quantitative methods provide the hard data needed to meet required objectives and to test hypotheses; since both methods have some bias, using both types of research helps to avoid such bias as each method can be used to check the other (Mugenda & Mugenda, 2003).

### **3.7 Pilot testing**

The pilot study is a feasibility study done in preparation for the major study (Polit et al., 2001). The pilot study helps in developing and pre-testing research instruments (Baker, 1994). The research instruments were pretested using a sample of 1% of the sample size (or 26 respondents) as per recommendations by Mugenda and Mugenda (1999, 2003) who observe that a successful pilot study will use 1% to 10% of the actual sample size. These respondents were selected from a sample that is similar to the one studied. Subjects from the actual sample were not used in the pre-test.

The pilot test was conducted in Dagoretti District of Nairobi County to test the data collection instrument to be used and the relationship between the independent, intervening and dependent variables. The pilot test involved 26 students from Ruthimitu Secondary School. The students were randomly selected from each class in the school. Procedures used in pre-testing the questionnaire were similar to those used in the actual study. This helped in clarifying questions, and in refining data analysis methods (Mugenda & Mugenda, 1999, 2003). From the responses obtained, the use of terms borrowed from the components of the health belief model in some of the questions in the questionnaire was found to be too technical for the students to understand. Some of these terms were omitted and others explained in order to ensure that secondary school students understand the questions in the questionnaire. Secondly, the responses obtained enabled the inclusion of some questions in the questionnaire to cater for information which had not been foreseen, and omission of questions which were found to be eliciting similar responses or responses deemed to be of little importance to the study. Thirdly, the responses enabled the researcher to identify vague questions and rephrase them. These are questions that different respondents understood differently.

### **3.8 Data presentation and analysis**

Data collected from questionnaires was coded. The coding scheme was designed inductively. It was designed on the basis of a representative sample of responses to questions. The data was then analysed using descriptive statistics. Descriptive statistics enable the researcher to summarize and organize data in an effective and meaningful way. They provide tools for describing collections of statistical observations and reducing information to an understandable form (Frankfort-Nachmias & Nachmias, 1996; Wimmer & Dominick, 2011).

Frequency distributions were constructed to examine the pattern of responses. These frequencies were converted to percentages for meaningful interpretation. The data was further presented using tables (Frankfort-Nachmias & Nachmias, 1996).

Data collected from interviews was analysed thematically and presented in narratives. Data collected from printed documents was analysed using content analysis. Sampling was done at word, phrase, sentence, paragraph, section, subject, theme level and the amount of space devoted to the mental health theme. The data collected was made into text or organized to be read. Codes were then analytically developed and transformed into categorical labels or themes. Materials were sorted by these categories, identifying similar phrases, patterns, relationships, and commonalities or disparities. These sorted materials were analyzed according to symbolic interactionism and the health belief model guidelines.

The data collected was sorted into the following categories: types of mental illness, causes of mental illnesses, who is at risk, severity of mental illnesses, availability of treatment, preventive measures, benefits of prevention and treatment, beliefs about causes of mental illness, beliefs about treatment, beliefs about interaction with the mentally ill, exposure to communication campaigns for mental health, and the effectiveness of the messages conveyed during the communication campaigns for mental health. The data was coded and tabulated using a computer. It was transferred directly to spread sheets to save time and reduce data errors before being analysed using frequency distributions, percentages and tables (Wimmer & Dominick, 2011).

### **3.9 Ethical considerations**

First, permission to carry out this research was applied for and obtained from the National Commission for Science, Technology and Innovation as per the regulations. Secondly, a letter authorizing the researcher to collect data from public schools in Lang'ata district was obtained from the County Director of Education's Office in Nairobi County. Thirdly, the researcher introduced himself and explained the purpose of this research to the administration in each of the public schools in Lang'ata district where data was collected from, Mathari Hospital management, respondents and informants. The administration in each school and the management of Mathari Hospital gave consent before data was collected from the students and psychiatric personnel respectively. The students, psychiatric doctors and nurses were requested to give accurate information regarding mental health issues and their knowledge and experience on how they are communicated. They were assured of confidentiality and that the data collected would be used for purposes of the research only. That assurance of confidentiality was upheld.

## CHAPTER FOUR

### RESEARCH FINDINGS AND DISCUSSION

#### 4.0 Introduction

This chapter provides the findings of the research. First, it presents the findings of the data collected from secondary school students using questionnaires. The data is presented in tables and percentages. These findings are triangulated with those of the data collected from the psychiatrists and psychiatric nurses through interviews and those from the newsletters and leaflets collected from the Mathari National Teaching and Referral Hospital. The findings are discussed under relevant objectives of the study. The triangulation of quantitative and qualitative data was done to enhance validity and reliability of the results.

#### 4.1 Knowledge levels of mental health among secondary school students in Nairobi County

The first objective of this study was to assess the knowledge levels of mental health among secondary school students in Nairobi County. The secondary school students who were sampled for this study were 334. Of these, 237 were boys and 97 girls. Table 4.1 below indicates the ages and sex of the respondents.

**Table 4.1: Age and sex of respondents**

AGE (YEARS)	SEX		TOTAL
	BOYS	GIRLS	
13	-	3	3
14	11	8	19
15	46	25	71
16	74	28	102
17	97	30	127
Above 17	9	3	12
Total	237	97	334

Table 4.1 above presents the distribution of 97 girls and 237 boys aged 13- 17 and above. The distribution of the respondents by their sex was proportional to their numbers in the study sample. When the students were asked to identify names of mental illnesses from a given list, they responded as shown in Table 4.2 below.

**Table 4.2 Knowledge of names of mental illnesses**

Name of mental illness	n	%
Depression	301	46
Dementia	23	4
Post-traumatic stress disorder	319	49
Schizophrenia	6	1
Total	649	100

Out of the 334 respondents who answered this question, only 6 indicated that all the above were mental illnesses. Therefore, though 49% of the respondents know that post-traumatic stress disorder is a mental illness, and 46% know that depression is also a mental illness, knowledge of mental health among secondary school students is still low. These low knowledge levels are further suggested by the fact that only 1% of the respondents know that schizophrenia is a mental illness. Schizophrenia was the theme of the World Mental Health Day in 2014.

Depression was the theme of World Mental Health Day in 2012. The newsletter prepared for 2012 indicates that depression is a global public health concern estimated to affect 350 million people. The newsletter also indicates that depression can affect anybody, young or old but it is treatable. Dementia is one of the mental illnesses common among the elderly and was one of the diseases focused on during the World Mental Health Day of 2013 whose theme was Mental Health and Older Adults. The newsletter and leaflet of 2013 had information on dementia.

Data collected from psychiatrists and nurses indicates that most people do not know mental illnesses by name. All of them agreed that people simply know that when one is mentally ill he or she is a *mwenda wazimu*. This language is a reflection of people's thoughts and meanings about mental illnesses. This is in line with the symbolic interactionism theory which argues that meaning arises out of the social interaction which occurs through use of language. This meaning is modified by a person's own thought processes by use of language (Griffin, 2009).

The next question was what the respondents believed causes mental illnesses. The responses obtained are presented in Table 4.3 below.

**Table 4.3: Causes of mental illnesses**

Causes of mental illnesses	n	%
Witchcraft	38	7
Curses	33	6
They are hereditary	53	9
Drug abuse	334	59
Infections	29	5
Injuries	32	6
An extremely unpleasant experience	23	4
Other diseases	17	3
Total	559	100

All the 334 respondents answered this question. They all chose more than one option. It is important to note that all the respondents, comprising 59% of the responses for this question, indicated that mental illnesses are caused by drug abuse. Indeed, studies indicate that drug and substance abuse enhance susceptibility to mental illnesses (WHO, 2012). The respondents therefore have knowledge of the fact that one of the risk factors to mental illnesses is drug abuse.

Most of the respondents who chose witchcraft as a cause of mental illnesses also chose curses. These are issues based on culture. Therefore, these responses are in line with the tenets of meaning, language and thought as expressed in the symbolic interactionism theory. Using the theory, it could be argued that to most of the respondents mental illnesses are associated with witchcraft and curses and this is expressed in the respondents' language and thoughts. These responses may indicate that in the respondents' society, people believe that mental illnesses are caused by witchcraft and curses, beliefs also common in many other parts of the world (WHO, 2010).

Overall, the responses clearly indicate that most respondents do not know some of the causes of mental illnesses. That is why few indicated infections, injuries, an extremely unpleasant experience and other diseases as causes of mental illnesses as compared to those who chose drug abuse. This is an indication that communication campaigns done have not increased levels of knowledge of mental health among these respondents.

The newsletter for the 2012 World Mental Health Day campaigns does not have any information on the causes of mental illnesses. The newsletter and leaflet used for the 2013 World Mental Health Day indicate that poverty, social isolation, loss of independence, loneliness, death of a spouse or a loved one, health status such as having chronic diseases including cancer, diabetes and hypertension, can cause mental illnesses among older adults.

The doctors and nurses interviewed indicated that they often talk about the causes of mental illnesses during the communication campaigns. They also said that they explain to their audiences causes which are preventable and those which are not.

Once people know the causes of mental illnesses, stigma will be reduced and all the mentally ill will be taken to hospitals for treatment.

On the question of who or what made the respondents to hold the belief they did about the cause(s) of mental illnesses, the responses obtained are as shown in Table 4.4 below.

**Table 4.4: Source(s) of the belief about the cause(s) of mental illnesses**

Source of the belief on the cause(s) of mental illness	n	%
Family and friends	334	30.36
Teachers	218	20
Religious people	101	9
Witchdoctors	32	3
Medical personnel	114	10.36
Communication campaigns	3	0.3
Books	87	8
The media	211	19.18
Total	1,100	100

All the respondents chose more than one source of these beliefs. It is important to note that the respondents cited the leading sources of their knowledge of the causes of mental illnesses as family and friends followed by teachers and then the media. This is consistent with findings by other studies on the sources of health information for adolescents (Masatu et al., 2003; Jones et al., 2011).

Family, friends, teachers and the media play a significant role in the formation of attitudes regarding mental health. Therefore, using the symbolic interactionism theory, the meaning given to mental illnesses, the language used to construct this meaning and the thoughts these students have regarding the causes of mental

illnesses are influenced by the beliefs and expectations of their families, friends, teachers and the media.

Since 32 respondents, representing 3% of those who answered the question chose the source of their beliefs on causes of mental illnesses as witchdoctors; it is evident that witchdoctors have little influence on the knowledge, beliefs and attitudes that the respondents have about mental illnesses.

The newsletters and leaflets used for World Mental Health Day in 2012 and 2013 did not have any information regarding sources of the beliefs about causes of mental illnesses. The doctors and nurses interviewed indicated that one of the reasons why stigma associated with mental illnesses is prevalent is because of the sources of information regarding their causes. One of the psychiatrists said:

*‘Since people do not get this information from psychiatrists, they remain misinformed about the causes of mental illnesses. That is why some do not bring the mentally ill to hospital. They choose to see witchdoctors.’*

Asked whether the media was playing an important role in informing people about the causes of mental illnesses, one psychiatrist said:

*‘The media in Kenya does not do anything useful to inform people about the causes of mental illnesses. They do not seek the opinions of psychiatrists when presenting news about what constitutes mental illnesses. They think they know. Anything that deviates from the norm should be explained by a psychiatrist.’*

When asked whether they felt they were vulnerable to mental illnesses, the respondents responded as shown in Table 4.5 below.

**Table 4.5: Vulnerability to mental illnesses**

Vulnerability to mental illnesses	n	%
Yes	36	11
No	298	89
Total	334	100

With 89% of the respondents thinking that they are not vulnerable to mental illnesses, it is evident that secondary school students do not have information on who is likely to contract mental illnesses. Several studies indicate that those who are at risk of contracting mental illnesses are those who are excluded from income generation and employment opportunities, those who lack educational opportunities, those who have reduced access to health and social services, those with chronic health conditions, those who are excluded from participating fully in society, those who are exposed to violence and abuse and those who abuse drugs (WHO, 2010, 2012; Othieno et al., 2008; Palmer, 2011; Patel, 2005; Patel & Jané-Llopis, 2005; WHO, 2010; Barry & McQueen, 2005; Bhugra, 2004; Melzer, Fryers & Jenkins, 2004; Danso, 2002).

The secondary schools in Langata district draw most of their students from Kibera, the largest informal settlement in Africa ([www.unhabitat.org](http://www.unhabitat.org)). These students are therefore susceptible to mental illnesses because of the levels of poverty they grow up in, their exposure to violence, abuse and drugs.

The newsletter for the 2012 World Mental Health Day has very scant information about susceptibility to mental illnesses. It only says that depression is a global health burden affecting both the young and the old. The leaflet for the 2013 World Mental Health Day indicates that risk factors for developing dementia are smoking, excessive alcohol consumption, obesity, diabetes, hypertension and genetic causes.

The psychiatrists and nurses interviewed indicated that those vulnerable to mental illnesses include people who abuse drugs, the elderly, those who are exposed to

violence, excessive levels of poverty, those who are suffering from terminal illnesses such as cancer and those who have been subjected to some traumatic experiences.

Asked about the severity of mental illnesses, the respondents responded as shown in Table 4.6 below.

**Table 4.6: Severity of mental illnesses**

Severity of mental illness	n	%
Can lead to committing suicide	297	19
Can lead to dropping out of school or quitting employment	325	21
Complete loss of memory	279	18
Can make one wrongly believe that others are trying to harm them	325	21
Can make one harm others	325	21
Total	1,551	100

The responses show that the respondents understand the severity of mental illnesses. This could be as a result of the knowledge that students have obtained from their interactions with others in society. This knowledge falls under the symbolic interactionism theory.

The newsletters and leaflets used for the World Mental Health Day campaigns have messages on the severity of mental illnesses. The newsletter used for the 2012 campaigns explains that mental illnesses are very expensive to treat. The newsletter and leaflet for the 2013 World Mental Health Day campaigns explain that mental illnesses cause memory loss, deteriorating physical health, lack of appetite, depressed mood, a feeling of worthlessness, helplessness, suicidal ideation and confusion.

Data collected from psychiatrists and nurses on severity of mental illnesses is in agreement with what is contained in the newsletters and leaflets.

The next question was on the benefits of preventing mental illnesses or seeking treatment when mentally ill. The responses were as shown in Table 4.7 below:

**Table 4.7: Benefits of preventing mental illnesses or seeking treatment**

Benefits of prevention or treatment	n	%
Enjoyment of good health	334	33.3
Remaining productive	334	33.3
Not being stigmatized	334	33.3
Total	1002	100

The data obtained shows that the respondents knew that prevention and treatment of mental illnesses is beneficial.

The newsletter used for the 2012 World Mental Health Day campaigns explains that the benefits of seeking to prevent and treat mental illnesses are avoiding chronic disability and premature death, living a healthier and richer life, increased productivity and the ability to cope with the stresses and conflicts of everyday life.

The newsletter used for the 2013 World Mental Health campaigns does not explain any benefit of prevention or treatment of mental illnesses. However, the leaflet used for the same year explains that prevention and treatment of common mental illnesses among the elderly results in decreased emotional suffering, improved physical health, lessened disability, decreased mortality, better quality of life and reduced health care expenditure.

On what will be a barrier to seeking information or treatment for mental illnesses, the responses obtained are shown in Table 4.8 below.

**Table 4.8: Barriers to seeking information about or treatment for mental illnesses**

Barriers	n	%
Fear that people will call me <i>mwenda wazimu</i> and avoid me	325	22
Lack of money	325	22
Lack of time	296	20
Feeling that I am not susceptible to mental illnesses	311	21
Belief there is no prevention or cure for mental illnesses	102	7
Belief only witchdoctors can cure mental illnesses	119	8
Total	1,478	100

The responses show that the barriers that can make the respondents not to seek information about or treatment for mental illnesses include fear of being called *mwenda wazimu*, lack of money, lack of time and the feeling that they are not susceptible to mental illnesses. Others are the belief that only witchdoctors can cure mental illnesses and the belief that there is no prevention or cure for mental illnesses.

The newsletter used for the World Mental Health communication campaigns of 2012 does not have any messages on barriers to prevention or treatment of mental illnesses. The newsletter for the 2013 World Mental Health communication campaigns mentions reluctance by the elderly who are mentally ill to seek treatment

as the only barrier. The leaflet used for the campaigns in 2013 does not have any message on barriers to prevention or treatment.

The psychiatrists and psychiatric nurses interviewed indicated that they talk about these barriers every time they are conducting communication campaigns. They said that the commonest barriers are stigma associated with mental illnesses, serious shortage of psychiatrists, few well-equipped psychiatric facilities, lack of money as the drugs are expensive and the cultural beliefs that mental illnesses are caused by witchcraft or curses and cannot therefore be prevented or treated in hospitals.

When asked what factors would make them seek information on preventing mental illnesses or seek treatment for a mental illness, the respondents responded as shown in Table 4.9 below.

**Table 4.9: Factors that could make you seek information about or treatment for mental illnesses**

Factors making one seek information or treatment	n	%
Close relative or friend becomes mentally ill	334	21
Close relative or friend seeks information on mental health	311	19.54
Mentally ill close relative or friend goes for treatment and recovers	303	19.04
Statistics on the number of the mentally ill	318	20
Information about susceptibility to mental illnesses	325	20.43
Total	1,591	100

The respondents ticked more than one factor. From the responses, it is clear that communication campaigns for mental health have messages on factors that could drive one to seek information on prevention or treatment of mental illnesses. They therefore have the fifth component of the health belief model which is cues to action.

The newsletter used to disseminate information on depression during the World Mental Health Day celebrations in 2012 explains that depression is treatable. The newsletter says that the treatment available is efficacious and cost effective. Since this is meant to encourage people to seek treatment for depression, it falls under the health belief model component of cues to action.

The newsletter and leaflet prepared for the 2013 World Mental Health Day campaigns do not have messages on cues to action. They lack an important component of the health belief model which could influence the target audience to seek information on mental health and adopt positive behaviours.

Asked whether during the campaigns they talk about factors that could drive one to seek information or treatment of mental illnesses, the doctors and nurses interviewed said they do. One of the psychiatrists observed:

*‘We always tell our patients, their caregivers and the general public signs that should make them seek immediate attention for treatment to avoid chronic illnesses. We tell them this all the time. Most of them listen because they actually come immediately they see the symptoms we tell them.’*

The next question was whether the respondents will have confidence to seek information about or treatment for mental illnesses. The responses obtained were as shown in Table 4.10 below.

**Table 4.10: Confidence in seeking information about or treatment for mental illnesses**

Confidence in seeking information about or treatment for mental illnesses	n	%
Yes	316	95
No	18	5
Total	334	100

The responses show that the respondents will be confident seeking information about or treatment for mental illnesses. The newsletters and leaflet used for the World Mental Health communication campaigns of 2012 and 2013 do not have any information regarding encouraging confidence among patients and their relatives or the general public to get information on prevention or treatment of mental illnesses. The doctors and nurses interviewed indicated that they always encourage patients and caregivers to develop confidence in preventing and seeking treatment for mental illnesses. One of the doctors said:

*‘We do a lot of counseling before, during and after treatment. We tell our patients and their caregivers that mental illnesses are like any other illness. They should not fear to seek information about prevention or treatment.’*

On the question of what you would do to a mentally ill relative or friend, the respondents responded as shown in Table 4.11 below.

**Table 4.11: What respondents would do to a mentally ill relative or friend**

Action taken	n	%
Take them to hospital	320	96
Take them to a witchdoctor	14	4
Detain them at home	0	0
Leave them to just move around	0	0
Eject them from home	0	0
Total	334	100

From the responses obtained, it is clear that the respondents knew that mentally ill people should be taken to hospital for treatment. They therefore knew that mental illnesses are treatable.

The newsletters and leaflet used for the campaigns in 2012 and 2013 have information on taking the mentally ill to hospital. They explain that taking the mentally ill to hospital and doing so early prevents the development of chronic illnesses. All the doctors and nurses said that they always tell people to bring their mentally ill to hospital.

On the question of whether they would accept back and freely interact with a close relative or friend who was mentally ill but has recovered, the respondents responded as shown in Table 4.12 below.

**Table 4.12: Willingness to interact with a close relative or friend who was mentally ill but has recovered**

Acceptance and interaction with a person who has recovered from a mental illness	n	%
Yes	316	95
No	18	6
Total	334	100

Since the respondents who said they will not interact with those who have been mentally ill but have recovered constitute only 6%, it can be argued that most secondary school students in Nairobi County do not stigmatise those who have been mentally ill but have recovered. Such stigma can lead to isolation of those who are suffering from mental illnesses and those who have recovered from the rest of society.

The next question was whether the respondents were aware of communication campaigns for mental health. The responses are as shown in Table 4.13 below.

**Table 4.13 Awareness of communication campaigns for mental health**

Awareness of communication campaigns for mental health	n	%
Yes	11	3
No	323	97
Total	334	100

With 97% of secondary school students indicating being unaware of communication campaigns for mental health in Nairobi County, it is evident that the communication campaigns conducted lack the element of reach. Mental health communication campaigns conducted in Nairobi County can be said to be ineffective in regard to young people because they lack reach. Atkin (2001) says that one of the basic reasons why health campaigns do not have strong impact is their inability to reach the audience and attain attention to the messages. Besides, it could be argued that these communication campaigns do not consider young people as a risk group that should be targeted for information on mental health issues with a view to identifying mental problems early and intervening at an early stage to prevent the development of adult and chronic mental health problems (Seroczynski, Jacques & Cole, 2003; Wunderlich, Bronisch, Wittchen & Carter, 2001; Rickwood, 2010; McGorry et al, 2007; Kessler et al, 2005). This is because a large number of young people in secondary schools are unaware of these mental health communication campaigns.

When the respondents were asked whether they had ever attended any communication campaign for mental health, they responded as shown in Table 4.14 below.

**Table 4.14: Attendance of communication campaigns for mental health**

Attendance of communication campaigns for mental health	n	%
Yes	3	1
No	331	99
Total	334	100

The low percentage of students who have attended the communication campaigns also shows that communication campaigns for mental health do not achieve widespread reach among secondary school students in Nairobi County. This means that these communication campaigns are not conducted in schools, which are the most strategic venues where they could target the highest number of students possible. This therefore indicates that most secondary school students in Nairobi County do not have knowledge of mental health issues.

From the interviews conducted, the Mathari Hospital Superintendent, the psychiatrists and psychiatric nurses who had indicated that they had participated in communication campaigns for mental health, especially on the World Mental Health Day, said that some primary and secondary schools are invited when marking the day and they bring their students.

One of the psychiatrists said:

*‘On that day we normally have four or five of the schools invited that bring their students. We invite many schools because we know that young people are very much at risk of contracting mental illnesses. We wish more schools could bring their students to learn about mental health issues.’*

When asked when they attended the communication campaign for mental health, the respondents responded as shown in Table 4.15 below.

**Table 4.15: Year attended communication campaign for mental health**

Year	attended n	%
communication campaign		
2011	0	0
2012	0	0
2013	3	100
Total	3	100

The three respondents attended the communication campaigns for mental health only in 2013. That means that among all the schools sampled from Langata District of Nairobi County, the students did not access the messages communicated in 2011 and 2012.

To the question on the venue of the communication campaign they attended, the respondents responded as shown in Table 4.16 below.

**Table 4.16: Venue of the communication campaign attended**

Venue of the communication campaign attended	n	%
School	0	0
Church	0	0
Hospital	3	100
Any other place	0	0
Total	3	100

All the three respondents attended the communication campaigns in hospital. However, from the interviews conducted, the psychiatric nurses asserted that the campaigns are also conducted in schools. One of them said:

*'We visit surrounding schools during the Nurses' Week, community outreach programmes and in the week before marking World Mental Health Day to talk to students about mental health issues.'*

Another one said:

*'We visit schools around here in the week before celebrating World Mental Health Day, during the Nurses' Week and community outreach which takes also takes one week. But these are few schools. We are not many and there is a lot of work. So we only visit a few like Mathari Primary and Muthaiga Primary.'*

However, the psychiatrists interviewed said that they had never been involved in communication campaigns targeting schools.

It is therefore clear that though these campaigns are taken to schools, not many schools are reached. Studies indicate that schools are a setting that could enable health communication campaigns to effectively reach the highest number of young people. Rutter et al (1979) say that the school setting provides an efficient and systematic means of promoting the health and development of young people. They observe that most children and adolescents spend a large proportion of their time in school and there is no other setting where such a large proportion of children can be reached. Rutter et al (1979) further observe that as well as providing a ready audience, school is known to have a significant influence on the behavior and development of children.

In addition, Weare (2010) says that schools are one of the most effective agencies for the promotion of health, including mental health. Greenberg (2010) states that by virtue of their central role in the lives of children and families and their broad reach, schools are the primary setting in which many initial concerns regarding mental health arise and can be effectively remediated. Furthermore, available evidence shows that using schools as settings for mental health communication leads to achievement of positive outcomes. In Pakistan, a school-based programme targeting students aged 12-16 years succeeded in reducing the stigma surrounding mental ill-

health in a rural community. School-going children acted as a source of information for their families, friends and neighbours in a cascade approach. The evaluation found that the school mental health programme improved school children’s awareness of and attitudes towards mental health problems. There were also positive changes in the attitudes and knowledge of community members (Rahman et al., 1998).

On who conducted the communication campaign(s) that the respondents attended, the respondents responded as shown in Table 4.17 below:

**Table 4.17: The person who conducted the communication campaign**

Who conducted campaign	n	%
Guidance and Counselling Teacher	0	0
Speaker Hired by School	0	0
Psychiatrist	3	100
NGO Personnel	0	0
Preacher	0	0
Total	3	100

The responses indicate that the three respondents attended communication campaigns for mental health conducted by psychiatrists. This means that the campaigns by the Ministry of Health prior to and on World Mental Health Day do not reach a wide audience as they are delivered by only one source at one venue. This could make it difficult for the messages disseminated annually on mental health during World Mental Health Day to reach many secondary school students.

Of the six psychiatrists interviewed, three had taken part in communication campaigns for mental health at Mathari Hospital in Nairobi County. Three had not.

Among the three who had participated, all of them said that they mainly participated during the World Mental Health Day.

One psychiatrist said:

*'We normally get involved during the week to celebrate World Mental Health Day. That is when most of us are available. We talk to patients and their caregivers and the general public.'*

Among the doctors who had not participated in the campaigns, one said that she had not because she was new while the other two said they were not aware of the campaigns. One of the psychiatrists who had not taken part in the campaigns said:

*'The management does not involve psychiatrists in these campaigns. I have worked here for more than three years but I have never taken part in the communication campaigns. I do not know the messages communicated. Yet the experience I have interacting with the mentally ill, their caregivers, doctors who are not in psychiatry and the general public can be very useful especially in combating stigma.'*

Indeed without active involvement of the psychiatrists in designing and disseminating messages on mental health, the messages might fail to communicate important information on mental health that these psychiatrists have accumulated through their experiences and interactions with patients.

All the seven nurses interviewed said that they had taken part in communication campaigns for mental health within Mathari Hospital and in the surrounding areas.

One of the psychiatrist nurses said:

*'On many occasions it is the doctors and nurses who conduct the campaigns. However, during the World Mental Health Day, the doctors and nurses are assisted by specialists from the ministry and even the minister. We sometimes invite some of our patients who have recovered from mental problems to share their experiences. This helps to show people that mental illnesses can be treated and mentally ill people can recover and lead normal lives.'*

Therefore, the campaigns have source credibility since they are conducted by psychiatrists and nurses. This is important as it ensures that the messages delivered are evidence-based.

On whether the doctors and nurses participated in the writing of the newsletter and leaflets, all the doctors and nurses interviewed said they had not. One of the doctors said:

*‘Our views are not sought when writing those newsletters. Yet, we have a lot of information from what we have seen by interacting with patients, caregivers, other doctors and the general public, that is extremely important in increasing knowledge and reducing stigma. We know the most prevalent mental illnesses, who is most at risk, what causes or triggers these mental illnesses, what is treatable and what is not. This is information that we need to share with the public. I wrote an article in the Sunday Nation after 40 patients had absconded from Mathari Hospital in 2013 to make the public know what is going on here and other psychiatric facilities in the country. The article led to some intervention such as renovation of wards and buying mattresses for patients. These are things we need to express in those newsletters because stressful surroundings cannot trigger or worsen mental illnesses.’*

This view was shared by all the doctors and nurses interviewed.

On what they were taught about mental health, the respondents responded as shown in Table 4.18 below.

**Table 4.18 Issues taught about mental health in communication campaigns attended**

Mental Health Issue Taught	n	%
Investing in mental health to lessen the disease burden and for economic development	0	0
The causes, symptoms, prevention and treatment of depression	1	33
Mental illnesses that affect older people and their symptoms, prevention and treatment	2	67
Total	3	100

‘Investing in mental health’ was the theme of World Mental Health Day in 2011, ‘depression’ was the theme in 2012, while ‘mental health and older people’ was the theme in 2013. The two respondents who indicated that they were taught about mental health and older people gave the right theme for the year 2013 which they indicated they had attended communication campaigns for mental health. The respondent who indicated that they were taught about depression and yet had also claimed to have attended the communication campaigns in 2013 was wrong because that was not the theme in 2013.

The newsletter used for dissemination of information on the theme of World Mental Health Day for 2011 was not available, but those used for 2012 and 2013 were available.

The psychiatrists and nurses who had participated in the communication campaigns said that each year the World Mental Health Day had a different theme. One psychiatrist said:

*‘The theme for the World Mental Health Day each year is set by the World Federation for Mental Health. However, during the other occasions doctors and nurses talk about all kinds of mental health problems.’*

One nurse said:

*‘During the Nurses’ Week and community outreach programmes, we teach the community about the mental health problems that they are exposed to, the symptoms, how they can be prevented and the need to come to the hospital for treatment. We also teach caregivers on the way they should manage their patients. We even teach patients how to take their medication and the need for them to come regularly for reviews because mental illnesses recur.’*

Asked whether when they go to schools to talk about mental health issues they have an objective to achieve and whether their message is clearly designed to achieve that objective, the nurses’ responses indicated that their objective was to increase knowledge levels about mental health among students. However, they all said that they never prepared newsletters or leaflets to take to schools. One nurse said:

*‘We just pick topics to talk about that we know are relevant to students. We use posters that we have with messages about drug and substance abuse. This is the most common cause of mental illnesses among students.’*

A psychiatrist who had not attended any communication campaign said:

*‘I have been here for many years. Nobody has ever sat down to think about campaign objectives and what messages will be designed to achieve them. Campaigns are just conducted. That is why I say they are routine and will not achieve much.’*

When asked whether these messages remain the same in all schools all the time. One nurse said:

*‘A lot of times the messages are the same in different schools in different years. The facts are the same.’*

On whether they sought to know from students what issues related to mental health they faced which should then be addressed in the campaigns, the nurses said that they did not. One nurse observed:

*‘We have never asked students what mental health problems they are suffering from. We tell them what we know or believe they are exposed to. I think it is important to also listen to them.’*

Asked whether they conducted any evaluation to assess the impact of the communication campaigns among students, the nurses said they had not. One nurse said:

*‘Having been here for more than fifteen years and participated in all the campaigns, I can tell you we have never done any evaluation. We just talk to the students and hope they listen to our messages. This hospital does not have the money to do an evaluation of campaigns.’*

Regarding evaluation of communication campaigns, one psychiatrist who had participated in the campaigns said:

*‘We have never done any evaluation because we do not have money. We are struggling with problems such as lack of wards, beds and mattresses. Sometimes even medicine. So we do not have money for evaluation. If we get money we can do it. It will help us to know where we are and what we can do.’*

On whether the communication campaigns contained messages on susceptibility to mental illnesses, the respondents responded as shown in Table 4.19 below.

**Table 4.19: Susceptibility to mental illnesses**

Susceptibility to mental illnesses	n	%
Yes	3	100
No	0	0
Total	3	100

All the respondents indicated that the communication campaigns had messages on susceptibility to mental illnesses. This shows that communication campaigns for mental health have one of the components of the health belief model which is perceived susceptibility.

The newsletter used to convey the message of the World Mental Health Day 2012 explains that depression can affect anybody, both the young and the old. This constitutes perceived susceptibility.

The theme for World Mental Health Day 2013 was ‘Mental health and older people.’ The newsletter prepared by Mathari Hospital to communicate the year’s theme indicates that the percentage of people with 65 years and over in Kenya was 2.7% by 2012. Males were 512, 921 while females were 650, 687. These are the older people at risk of mental illnesses. The leaflet prepared for this year explains that the female gender is particularly vulnerable to depression. By identifying the people at risk of mental illnesses, the leaflet and newsletter fulfilled one of the components of the health belief model. This is perceived susceptibility.

The newsletter further explains that the rapid breakdown of social support and traditional structures that ensured care of the elderly significantly contributes to poor mental health of the elderly people in Kenyan communities. The newsletter and leaflet explain that other factors that can lead to mental illnesses among the elderly are poverty, social isolation, loss of independence, loneliness and losses of different

kinds. The social support and traditional structures that ensured care of the elderly is an aspect of the community. Community is one of the aspects of the symbolic interactionism theory that determine people's expectations and responses to mental illnesses. These factors also describe the elderly who are at risk of suffering from mental illnesses. They therefore fall under perceived susceptibility.

According to the leaflet prepared for the 2013 World Mental Health Day, most mental disorders among the elderly are assumed to be the normal process of aging and are therefore left unattended to. This happens because people have assigned meanings of being elderly to memory loss, language impairment and disorientation and changes in personality among other symptoms of mental illnesses. This social reality is as a result of ignorance. Such meaning or social reality can be explained through the symbolic interactionism theory. The meaning or social reality will be expressed in the language that people use when talking about the elderly who are mentally ill and the thoughts they have about these mentally ill elderly people. These are premises of the symbolic interactionism theory.

The leaflet and newsletter used for the 2013 World Mental Health Day communication campaigns further explain that depression among the older people is caused by factors such as: changes in socio-economic circumstances, personal status related to retirement, death of a spouse or other loved ones, health status such as having chronic diseases including cancer, diabetes and hypertension.

Regarding perceived susceptibility, all the doctors and nurses who had taken part in the communication campaigns for mental health said it is a key message in the campaigns. Even those who had not taken part in the campaigns said that they always explain to their patients and caregivers who is susceptible to mental illnesses. One doctor said:

*'Though I have never participated in any communication campaign, I explain to my patients and caregivers who is vulnerable to mental illnesses every day.'*

When asked who is susceptible to mental illnesses, one of the doctors interviewed said:

*‘Those who are susceptible to mental illnesses are people who suffer from terminal illnesses such as cancer; those who have witnessed traumatic experiences such as the murder of a close relative; those who are exposed to violence such as domestic violence; those who abuse alcohol and other drugs; the elderly, and those whose families have a history of mental illnesses.’*

Interviews conducted with the other doctors and nurses elicited similar information.

One of the nurses interviewed emphasised that:

*‘The most susceptible are drug users, youths and those with diseases such as Cancer and HIV. In fact, HIV has increased the number of mentally ill people.’*

Risk factors for developing dementia are also explained in the leaflet used for the 2013 World Mental Health Day communication campaigns. They include: vascular and modifiable factors such as smoking, excessive alcohol consumption, obesity, diabetes, hypertension and raised cholesterol. There are also genetic causes. All these explain who is vulnerable to contracting dementia. This information falls under the perceived susceptibility component.

The Health Belief Model predicts that as an individual’s level of risk assessment regarding a disease increases, chances of compliance with recommended prevention measures also increase. Generally, positive correlations between perceived severity and susceptibility and compliance with treatment or prevention options have been reported (Snyder & Rouse, 1992; Mickler, 1993). It is therefore expected that when secondary school students get messages on how susceptible they are to mental illnesses, they will stop behaviours that put them at risk of contracting mental illnesses or seek treatment immediately they detect they are mentally ill.

On whether they were given any information on the severity of mental illnesses during the communication campaigns, the respondents responded as shown in Table 4.20 below.

**Table 4.20: Severity of mental illnesses**

Severity of mental illnesses	n	%
Yes	3	100
No	0	0
Total	3	100

The findings indicate that communication campaigns for mental health contain messages about severity of mental illnesses. This also shows that communication campaigns for mental health contain another component of the health belief model which is perceived severity.

The newsletter used for the 2012 communication campaign on depression starts by explaining that in 2004 depression was ranked as the third leading cause of the global burden of disease and will move into the first place by 2030. It explains that depression is a global public health concern and is estimated to affect 350 million people globally. The newsletter explains that in Kenya depression is among the top ten causes of Daily Adjusted Life Years (DALYS). This information is meant to show people how widespread depression is.

The severity of dementia and depression among the old persons is explained in the newsletter and leaflet used for the communication campaigns in 2013. The newsletter and leaflet explain that dementia is a term used for a group of symptoms associated with non-treatable, irreversible, progressive illnesses which affect the brain. Its symptoms are memory loss, confusion, dis-orientation and judgement problems. The elderly who are suffering from memory loss may become agitated, angry or combative. Memory impairment causes significant impairment in social or occupational functioning. The irreversibility of dementia and how it affects the elderly fall under perceived severity, a component of the health belief model.

The newsletter and leaflet further explain that older persons who suffer from depression have worse outcomes after medical events such as hip fractures, heart attacks, or cancer. They also explain that depression often results in higher cases of suicide among older patients. These outcomes fall under the component of perceived severity in the health belief model.

The newsletter also explains the symptoms of depression. These include: depressed mood, extended sleep, loss of interest, lack of appetite, a feeling of worthlessness, difficulty concentrating, suicidal ideation, helplessness and hopelessness or guilt. These symptoms fall under the component of perceived severity.

Further, the newsletter and leaflet used for communication campaigns in 2013 explain that some of the mental health issues in the elderly include degenerative diseases such as memory loss (dementia), depression, anxiety, strokes due to high blood pressure and deteriorating physical health.

All the doctors and nurses who indicated that they had participated in communication campaigns for mental health said that severity of mental illnesses is always explained during the campaigns.

One of the doctors said:

*‘During all our communication campaigns we explain how severe mental illnesses can be to the patients, caregivers, whole families and the entire society. We explain the effects to a person’s health and the health of members of the family, the effect it has on the productivity of that person and the caregivers, how expensive it can be to treat a mental illness for the family and society, and how emotionally draining it is. Some people listen.’*

Another doctor said:

*‘We explain to the caregivers, the patients and all those who attend communication campaigns how severe mental illnesses can be. This helps to make those who abuse drugs stop. It also makes caregivers and members of the*

*families of those who are mentally ill to be kind towards them as they understand the problem the patient is facing.'*

Mental health problems such as depression can lead to other serious problems including substance abuse, social withdrawal, a breakdown in family and personal relationships and poor academic and work performance (Burns et al., 2009). Depression is also linked to substance abuse, eating disorders and implicated in many cases of youth suicide (Rao, Daley & Hammen, 2000). Furthermore, mental health problems can lead to disability and premature mortality, stigma and discrimination, social exclusion and impoverishment (WHO, 2012).

On whether the students were told of the benefits of preventing mental illnesses or seeking medical treatment for mental illnesses during the communication campaigns, the responses were as shown in Table 4.21 below.

**Table 4.21: Benefits of preventing or treating mental illnesses**

Benefits of preventing or treating mental illnesses	n	%
Yes	3	100
No	0	0
Total	3	100

The findings show that the communication campaigns for mental health contain the third component of the health belief model which is perceived benefits. This is because all the respondents indicated that indeed they were told of the benefits of preventing mental illnesses or seeking medical treatment for mental illnesses.

The newsletter used for disseminating information on the theme for World Mental Health Day 2012 has information on the benefits of treatment for mental health illnesses. It says that treatment will help those who are mentally ill avoid chronic

disability and premature death, and give them a life that is healthier and richer- a life lived with dignity. The newsletter also explains that with treatment there will be greater financial returns from increased productivity and lower net costs of illness and care. Communities and individuals will be better able to avoid or cope with the stresses and conflicts that accompany mental illnesses.

The newsletter used for disseminating information on the theme for World Mental Health Day 2013 has information about the benefits of addressing mental health problems among the elderly. These benefits are: decreased emotional suffering, improved physical health, lessened disability, decreased mortality and better quality of life. Furthermore, increasing access to mental health for older persons will reduce health care expenditures by lowering the frequency of primary care visits, medical procedures and medication use. In the health belief model, these benefits fall under the component of perceived benefits.

Those doctors and nurses who had taken part in communication campaigns for mental health indicated that during the campaigns they explain to their audience what the benefits of preventing mental illnesses, for instance by avoiding drug and substance abuse are. They also said that they explain the benefits of early interventions for those who are mentally ill and the benefits of adhering to treatment instructions.

Positive mental health is associated with improved learning and academic achievement, increased participation in community life, reduced sickness, improved productivity, reduced risk-taking behavior, improved physical health and reduced mortality, among others (NICE, 2009).

Responses to the question on barriers to seeking knowledge of mental health or treatment for mental illnesses are as shown in Table 4.22 below.

**Table 4.22: Barriers to seeking knowledge of mental health or treatment for mental illnesses**

Barriers to knowledge of mental health or treatment for mental illnesses	n	%
Fear people could see you and say you are mentally ill	3	19
Feeling that you are not susceptible to mental illnesses	3	19
Belief there is no prevention or cure for mental illnesses	3	19
Belief only witchdoctors can cure mental illnesses	3	19
Lack of money	3	19
Lack of time	1	6
Total	16	100

The responses show that communication campaigns for mental health contain messages on perceived barriers to seeking knowledge of mental health or treatment for mental illnesses. Perceived barriers is another component of the health belief model. The respondents chose more than one option. From the responses, it is clear that the barriers to seeking knowledge of mental health or treatment are as a result of ignorance and stigma. This arises from the meanings or social reality that people have given mental illnesses, the language people use when talking about mental

illnesses and the thoughts that they have about mental illnesses. Meaning, language and thought are tenets of the symbolic interactionism theory.

The newsletter prepared for the 2012 World Mental Health Day campaigns does not have any information on barriers to prevention and treatment of mental illnesses. Though the newsletter for 2013 has this information, it is very little. The newsletter only observes that though incidents of depression, anxiety and dementia are common in the elderly and need to be diagnosed and managed in time, older people are reluctant to seek help. The leaflet used for the 2013 campaigns does not have any information on barriers.

All the psychiatrists and psychiatric nurses interviewed cited stigma as the commonest barrier in seeking diagnosis or treatment for mental illnesses. They said that the stigma was coming from even among doctors specialised in areas apart from psychiatry. One of the psychiatrists said:

*‘Stigma is the greatest barrier to accessing treatment for mental illnesses. It is manifested in the beliefs that mental illnesses are caused by witchcraft, other doctors seeing psychiatrists as inferior and creating a lot of jokes about them, patients being referred to the psychiatrists after all other doctors have failed to treat them and the use of derogatory language such as mwenda wazimu when referring to the mentally ill. The stigma is also expressed through the dilapidated buildings at Mathari Hospital.’*

Another psychiatrist observed:

*‘Lack of psychiatrists is one of the greatest barriers to accessing treatment or information on mental illnesses. There are very few psychiatrists in the country. For instance, until 2012 there was one psychiatrist in Nakuru serving also Gilgil and Naivasha. So when patients come to seek help and find long queues, they give up. This hinders psychoeducation.’*

A third psychiatrist said:

*'First generation drugs have serious side effects which often discourage patients and their caregivers. The second generation drugs are expensive. These are barriers to treatment.'*

On whether these barriers to enhancing knowledge of mental health and accessing treatment are included in communication campaigns for mental health, the doctors and nurses said that they often talk about them. One nurse said:

*'By talking about stigma, we have made many parents to gain confidence and bring their mentally ill children to hospital instead of hiding them. It also helps those who stigmatise mental illnesses to stop since stigma is due to ignorance.'*

Rickwood et al (2007) say that young people remain reluctant to access face-to-face services due to preference for informal support and for working out personal problems by themselves, lack of familiarity with and mistrust of mental health services, fear of the stigma attached to mental illness and mental health service use, confidentiality concerns regarding service access, and lack of access to appropriate youth-friendly services.

Information on barriers to seeking prevention and accessing treatment for mental illnesses is important as it will make the public aware of these barriers so that they can look for ways of overcoming them.

On whether the students gained confidence in seeking information on prevention of mental illnesses or seeking treatment as a result of the information got from the communication campaigns, the respondents gave the responses shown in Table 4.23 below.

**Table 4.23: Gaining confidence in seeking information on prevention of mental illnesses or seeking treatment**

Gaining confidence in seeking information on prevention of mental illnesses or seeking treatment	n	%
Yes	3	100
No	0	0
Total	3	100

The responses obtained indicate clearly that communication campaigns for mental health contain messages that enhance self-efficacy (confidence), the sixth component of the health belief model.

However, the responses contradict the data obtained from the newsletters and leaflet used for the 2012 and 2013 World Mental Health Day campaigns. The newsletters and leaflet do not have any information on self-efficacy.

The psychiatrists and nurses interviewed said that they include messages that enhance confidence among their patients, caregivers and the general public on seeking treatment for mental illnesses.

One of the psychiatrists said:

*‘Unless we inspire confidence in our patients and their caregivers, most would not finish their treatment and come back for regular reviews. Mental illnesses such as Alzheimer’s which affects the elderly are not treatable. We just manage the patients. We therefore constantly encourage the patients and their families so that they can keep on coming back to hospital for medication. Chronic*

*mental illnesses take long to fully recover. Therefore patients need to be reassured of their recovery so that they can take their medicine regularly.'*

Self-efficacy is an important component of health messages because people who have a strong sense of self-efficacy regarding health and self-care behaviours are more likely to have a healthy lifestyle, to seek and follow medical advice when ill, to avoid life crises, to cope with crises that do occur, and to establish closer personal ties so that social support is available to buffer against illness (Peterson & Stunkard, 1989). Conversely, those with low self-efficacy think of themselves as helpless; they are more likely to become ill and to cope ineffectively with medical problems (Bandura, 1997; Brown et al., 1997).

On whether the respondents gained any new information about mental health from the communication campaign they attended, the responses they gave are shown in Table 4.24 below.

**Table 4.24: Whether new information about mental health was gained**

New information gained	n	%
Yes	3	100
No	0	0
Total	3	100

These responses show the respondents gained new information from the communication campaigns. Such new information will enable the respondents to acquire knowledge of mental health that they did not have before. In line with the symbolic interactionism theory, this knowledge will lead to creation of new meanings about mental health issues and therefore new social realities. The new social realities will lead to new and knowledgeable thoughts about mental health issues which will lead to attitude change. This attitude change towards mental health

issues will be evident in the language that the respondents use when talking about mental health issues. There will be a reduction of stigma against the mentally ill.

The next question was on the number of young people who are mentally ill the respondent knew in his or her community. The responses were as shown in Table 4.25 below.

**Table 4.25: Number of young people who are mentally ill the respondent knows from his or her community**

Number of young people who are mentally ill in the community	n	%
None	52	15
Less than 5	266	80
Between 5-10	16	5
More than 10	0	0
Total	334	100

The responses show that there are young people in the community who are mentally ill. This therefore makes it necessary to have communication campaigns for mental health targeting young people so that if they are mentally ill they can be treated early to avoid the mental problems worsening.

The doctors and nurses interviewed indicated that there are many young people suffering from mental illnesses. They said that this is because of drug and substance abuse. One doctor added that:

*‘Sometimes, the stressors among young people are more and they are not related to drug abuse. They can be exams. Mental illnesses occur more during exam periods.’*

The next question was how many of the mentally ill that the respondent knew in his or her community who had ever been taken to hospital by their families. The responses are as shown in Table 4.26 below.

**Table 4.26: The mentally ill taken to hospital**

The mentally ill taken to hospital	n	%
All of them	36	10.78
Many of them	81	24.25
A few of them	169	50.59
None of them	13	3.89
I do not know	35	10.47
Total	334	100

86% of the respondents show that many mentally ill patients are taken to hospital. The few who do not take their mentally ill relatives to hospital lack knowledge that mental illnesses are treatable. Communication campaigns for mental health are needed to make such people start taking their mentally ill relatives to hospital.

The doctors and nurses interviewed said that the number of the mentally ill taken to hospital for treatment has been on the rise. One nurse said:

*‘Because of the community outreach programmes and the campaigns that we conduct, many people now bring their mentally ill family members to hospital.’*

When asked whether communication campaigns for mental health reach many people in the respondent’s community, the responses obtained were as shown in Table 4.27 below.

**Table 4.27: Whether communication campaigns for mental health reach many people**

Whether communication campaigns for mental health reach many people	n	%
Yes	3	1
No	331	99
Total	334	100

3 respondents indicated that communication campaigns for mental health reach many people. These are the respondents who had indicated that they had attended communication campaigns for mental health. However, with 99% of the respondents saying that communication campaigns for mental health do not reach many people, it is clear that these campaigns are ineffective and need to be improved. Explaining reasons why campaigns do not have a strong impact, Atkin (2001) says that the most elemental problem is reaching the audience and attaining attention to the messages.

All the doctors and nurses interviewed agreed that the communication campaigns do not reach many people. They all agreed that knowledge levels were still very low and stigma high. The next question was what communication campaigns for mental health had achieved. The responses obtained are as shown in Table 4.28 below.

**Table 4.28: What communication campaigns for mental health have achieved**

Achievements of communication campaigns for mental health	n	%
Reduction of stigma	22	6
Reduced numbers of mentally ill	19	5.1
Increased numbers of mentally ill taken to hospital	58	15.5
All the above	3	0.8
None of the above	273	72.8
Total	375	100

With 72.8% of the respondents saying that communication campaigns for mental health have not made any significant achievements, it can be concluded that these campaigns need to be done using a different approach.

The newsletters and leaflets used for the World Mental Health Day campaigns of 2012 and 2013 do not contain any information about the achievements made by previous communication campaigns. They need to communicate such information as it will show the public where they are coming from and where they are going. It will enhance their knowledge of mental health issues. This might also act as an encouragement to adopt positive attitude towards mental health issues.

When asked whether the communication campaigns for mental health held in Nairobi County have been effective in enhancing knowledge, four of the psychiatrists and all

the psychiatric nurses were in agreement that for those from areas around Mathari Hospital knowledge levels had been raised. They said that this was because more mentally ill patients are being brought to hospital, more mentally ill patients were bringing themselves, cases of abandonment of the mentally ill were significantly reducing, patients and caregivers were following treatment instructions carefully and there have been increased cases of recovery from mental illnesses. However, they all agreed that this may not be the case for all other parts of Nairobi County. They said that many parts of Nairobi County had not been reached by the communication campaigns. Of the two psychiatrists who said that the communication campaigns have not been effective in enhancing knowledge, one said:

*‘The communication campaigns are not serving any useful purpose. In fact the way World Mental Health Day is celebrated in Kenya it is routine and it focuses more on mental health practitioners than the public.’*

This is because the public was not invited to Mathari Hospital during World Mental Health Day until 2012.

Another psychiatrist observed that:

*‘There is inadequate funding to make these communication campaigns more effective. More funds are needed to produce more newsletters and to reach more people through media such as radio, newspapers and television. This will make more people aware of mental health issues and World Mental Health Day.’*

One of the psychiatric nurses said:

*‘Knowledge is increasing among patients and their relatives. Relatives bring patients they had kept at home. Relatives of those who we have treated encourage others to come for treatment.’*

The last question was how in the respondent’s opinion communication campaigns for mental health should be made more effective. The responses obtained were as shown in Table 4.29 below.

**Table 4.29: How communication campaigns for mental health should be made more effective.**

How communication campaigns should be made more effective	n	%
They should be held more regularly	35	10
They should use language that people understand	7	2
They should not be held in hospitals alone	16	4.6
All the above	291	83.4
Total	349	100

The responses obtained show that communication campaigns for mental health should be held more regularly, use language that people understand and not in hospitals alone in order to be more effective. Regarding the element of the regularity of communication campaigns for mental health held in Nairobi County, three of the six psychiatrists interviewed said that they were conducted only once a year prior to and during World Mental Health Day. One of the psychiatrists who had not been involved in the communication campaigns said:

*‘If these communication campaigns were conducted regularly, most of us could have known and could have been actively involved. They are conducted once and they are low key. They lack publicity.’*

Another psychiatrist who had not taken part in the campaigns because she was new said:

*'I have no knowledge how many times they take place.'*

A third psychiatrist, said:

*'The communication campaigns are conducted regularly. Apart from the week preceding World Mental Health Day, the campaigns are also conducted during Nurses' Week which takes place in May and during community outreach programmes conducted regularly by nurses. We would like to conduct more of these campaigns but we lack resources.'*

Indeed, available literature indicates that the government of Kenya, just like many others worldwide, does not offer meaningful budgetary support to mental health. The World Health Organization (2010) reports that one third of the countries worldwide do not have a budget for mental health services, and a further one fifth spend less than 1% of their total health budget on mental services. According to the Kenya National Commission on Human Rights (2011), the recurrent expenditure allocation for mental health had remained at around 1% of the budget of the Ministry of Medical Services for five years. Lack of resources can hamper the process of carrying out communication campaigns for mental health regularly.

Five of the seven psychiatric nurses concurred that the campaigns were conducted regularly. They said that the campaigns were conducted in the area around the hospital during the Nurses' Week in May every year, during community outreach programmes which are conducted regularly and as part of events to mark World Mental Health Day. During these occasions they visited schools, churches, community centres and homes.

All the doctors and nurses interviewed were in agreement that the campaigns should be conducted regularly and they should use the mass media such as radio, television and newspapers to reach more people. To do these, they all said that funding from government and donors was needed. In addition, the doctors argued that they need to be involved more in these campaigns, especially in preparing messages for the campaigns and taking the campaigns to people in different places.

Evidently, communication campaigns for mental health in Nairobi County and generally in Kenya are conducted three times a year and for very short periods, not more than a week. This cannot be effective since many people are not reached and there is also lack of the element of repetition. Greenberg et al (2001) say that one-off sessions or short-term interventions seem to have short-term results.

Out of 334 respondents given questionnaires, 331 respondents had not attended communication campaigns for mental health held in Nairobi County. It is therefore evident that communication campaigns for mental health do not target secondary school students, they are not conducted in schools and many secondary school students are unaware of them. This makes them highly susceptible to mental illnesses since they lack knowledge of mental health.

#### **4.2: Analysis of messages communicated during communication campaigns for mental health in Nairobi County**

The second objective of this study was to analyze the messages communicated during communication campaigns for mental health in Nairobi County. The analysis focused on whether the messages were based on the components of the health belief model and symbolic interactionism theory. Messages in the newsletters were also analysed based on the amount of space dedicated to the theme for World Mental Health Day. The messages were analysed using data obtained from questionnaires, the newsletters and leaflet used for the 2012 and 2013 communication campaigns and the data obtained from interviews.

The data obtained from questionnaires which had been issued to students of secondary schools in Langata District in Nairobi County indicates that the messages communicated during communication campaigns for mental health had the following components of the health belief model: perceived susceptibility, perceived severity, perceived benefits, perceived barriers, cues to action and self-efficacy. These are presented in Tables 4.9, 4.20, 4.21, 4.22 and 4.23.

However, the messages lacked reach as 99% of the respondents observed that they do not reach many people. This is shown in Table 4.27. Reach is an attribute of effective health communication (US Office of Disease Prevention and Health Promotion, 2000).

Next, the analysis focused on the messages contained in the newsletters and leaflets used for the World Mental Health Day. These newsletters and leaflets are printed by Mathari Hospital in conjunction with the Ministry of Health and distributed to the staff of Mathari Hospital and the public during the marking of World Mental Health Day. They contain information on the theme for mental health that year.

Though the study was supposed to collect data from the newsletters and leaflets which were used in 2011, 2012 and 2013, there was no newsletter or leaflet available for the 2011 World Mental Health Day.

The newsletter used for the 2012 World Mental Health Day explains that Mathari Hospital had an Open Day for the first time in 2012 to mark World Mental Health Day. This was the first time Mathari Hospital opened its doors to the public during the marking of World Mental Health Day to address stigma that is directed towards mental health institutions. The newsletter does not explain the various ways in which this stigma is manifested. Stigma is an aspect of culture. It is as a result of the meanings that people have given mental illnesses. This is expressed in the language that people use when referring to mental health issues and the thoughts they have about them. Therefore this message was not presented clearly based on the elements of symbolic interactionism theory thus: meaning, language and thought which are important in shaping the attitudes and beliefs of self and community.

The newsletter also explains that efforts should be doubled to ensure that proper diagnosis is made and treatment interventions available at all levels of healthcare in managing depression. Though not clearly explained, this information could constitute some of the barriers to treatment of mental illnesses.

Among the categories into which collected data was sorted, the newsletter used for the 2012 World Mental Health Day campaigns has messages on types of mental

illnesses, who is at risk, severity of mental illnesses, availability of treatment, benefits of treatment and cues to action. It lacks information on: causes of mental illnesses, barriers to treatment of mental illnesses, self-efficacy, preventive measures, beliefs about causes of mental illnesses, beliefs about treatment, beliefs about interaction with the mentally ill, exposure to past communication campaigns for mental health, and the effectiveness of the messages conveyed during past communication campaigns for mental health. The newsletter therefore lacks sufficient information to enhance knowledge of depression, the World Mental Health theme for 2012. The categories are shown in Table 4.2 below.

**Table 4.2: Categories into which 2012 data was sorted**

Category	Representation
Types of mental illness	✓
Causes of mental illnesses	×
Who is at risk	✓
Severity of mental illnesses	✓
Availability of treatment	✓
Preventive measures	×
Benefits of prevention and treatment	✓
Barriers to treatment	×
Cues to action	✓
Self-efficacy	×
Beliefs about causes of mental illness	×
Beliefs about treatment	×
Beliefs about interaction with the mentally ill	×
Exposure to previous communication campaigns for mental health	×
Effectiveness of the messages conveyed during past communication campaigns for mental health	×

Furthermore, the newsletter dedicates very little space for depression, the World Mental Health theme for 2012. It has four pages and each page has three columns. Out of these, only two paragraphs focus on depression. One paragraph is in the speech of the Chair of Mathari Hospital and the other in the speech of the hospital superintendent. The rest of the newsletter gives an overview of the various departments in Mathari Hospital, their functions, developments, future plans and the challenges the hospital is facing. Therefore, the newsletter does not give much attention to the World Mental Health theme for 2012 and cannot effectively enhance knowledge regarding the theme.

The newsletter and leaflet used for the World Mental Health Day in 2013 explain that depression can be treated. This should help to change the meaning, language and thoughts that people have about depression. Further, the leaflet explains clearly preventive measures for dementia. For primary prevention, the preventive measure is avoiding some medication. But the medication to be avoided is not explained. For secondary prevention, preventive measures include avoiding alcohol, cigarettes, obesity, diabetes and hypertension. This information is explained so clearly that it will help anybody who reads it and is interested in adopting positive behaviour that will enable them not to contract mental illnesses.

In addition, the newsletter used for the 2013 campaigns has a recommendation to the government to consider a welfare scheme through which senior citizens are provided with medical insurance covers and monthly allowances to cater for their basic needs so as to guarantee them decent life and comfort.

The messages contained in this newsletter and leaflets have the following components of the health belief model: perceived susceptibility, perceived severity and perceived benefits. They lack perceived barriers, cues to action and self efficacy. Just like the other components of the health belief model, these are very necessary components which should have been included in the messages to influence people to change their behaviours.

The messages also explain what the society thinks about mental illnesses and how this affects the mentally ill. This information falls under the symbolic interactionism premises of thought, meaning and community. For instance, the leaflet explains that mental disorders among the elderly are assumed to be the normal process of aging and the elderly are therefore not taken to hospital for treatment. This explains the thoughts and meanings communities have regarding aging and mental disorders. The leaflet adds that some elderly people are even neglected and this worsens their mental problems. On its part, the newsletter explains that the rapid breakdown of social support and traditional structures that ensured care of the elderly has significantly contributed to poor mental health of the elderly. This explains how the community is responsible for aggravating mental illnesses among the elderly. The newsletter therefore argues that social support and family interactions can boost the dignity of older people and are likely to have a protective role in the mental health outcomes of older people. These are premises of the symbolic interactionism theory.

However, the messages lack any information on beliefs about causes of mental illnesses, beliefs about treatment and beliefs about interaction with the mentally ill. These could have made the meaning, and thoughts that people have in regard to mental illnesses as well as the language they use clear. The message expressed in this newsletter also lacks information concerning exposure to previous communication campaigns for mental health and the effectiveness of the messages conveyed during past communication campaigns for mental health. These are important elements that could have shown the knowledge levels and the objectives which have been achieved, the challenges encountered, what has not been achieved, what should be done to address the challenges met and how future communication campaigns for mental health should be improved. Table 4.2 below summarises the categories into which the data collected from the newsletter and leaflet is grouped.

**Table 4.2: Categories into which 2013 data was sorted**

Category	Representation
Types of mental illness	✓
Causes of mental illnesses	✓
Who is at risk	✓
Severity of mental illness	✓
Availability of treatment	✓
Preventive measures	✓
Benefit of prevention and treatment	✓
Barriers to prevention and treatment	✓
Cues to action	×
Self-efficacy	×
Beliefs about causes of mental illness	×
Beliefs about treatment	×
Beliefs about interaction with the mentally ill	×
Exposure to previous communication campaigns for mental health	×
Effectiveness of the messages conveyed during past communication campaigns for mental health	×

The newsletter for 2013 has twelve pages. The World Mental Health theme for the year, 'Mental health and older persons' appears only on the front page, in two paragraphs on page 4 and the back page. The rest of the newsletter, 10 pages, gives an overview of the departments at Mathari Hospital, the functions they offer, the achievements made over the years, the plans the hospital has and the challenges they are facing. Though this newsletter gives more attention to the World Mental Health theme of 2013 than the one of 2012 does, it still focuses more on other issues than that theme. This therefore makes it inadequate and ineffective in enhancing knowledge of mental health.

However, the leaflet used for the 2013 World Mental Health Day campaigns fully focuses on the theme for that year. It has messages clearly explained though they also lack the components identified in Table 4.2 above.

From the interviews conducted, data collected indicates other ways of communicating messages about mental health which are used prior to and during World Mental Health Day celebrations. When asked how messages are communicated prior to and during the World Mental Health Day celebrations, one psychiatrist said:

*'Letters and posters are sent to schools and surrounding community to invite people. On the day there is a walk from Pangani to Mathari Hospital by members of staff. They wear T-shirts bearing the theme of the year. They also carry placards. At the gate to the hospital we put a banner carrying the theme of the year. At the hospital grounds, all in attendance are given newsletters and leaflets containing messages based on the theme of the year. They also listen to speeches by the hospital management, officials from Division of Mental Health, local politicians and the Minister for Health.'*

The psychiatrists and psychiatric nurses who had attended the World Mental Health Day celebrations concurred that this is what happens.

When asked which language was used during the communication campaigns, the psychiatrists and the psychiatric nurses said that the language used in the newsletters, leaflets and placards was English. They said most of the speeches delivered during World Mental Health Day are also in English and a few could say some things in Kiswahili.

One psychiatrist said:

*'We do not have enough resources to write the newsletters and leaflets in both English and Kiswahili.'*

The use of English in these newsletters, leaflets, placards and banners could limit the number of people who access the information expressed in them. All these materials should also be written in Kiswahili to reach those who do not know English.

The psychiatrists and nurses interviewed indicated that their messages targeted all members of the community. They explained that when they visited schools, they targeted students. In churches and community centres, they targeted the entire community.

One psychiatric nurse said:

*'We target patients and their relatives during the campaigns. They will understand more.'*

Another psychiatric nurse said:

*'When we go to surrounding schools such as Muthaiga Primary and Mathari Primary, we target teachers and pupils. During community outreach programmes we target youths, community leaders, parents, church leaders and politicians. They help to spread the message.'*

The psychiatrists and psychiatric nurses who had participated in communication campaigns for mental health said that the messages disseminated during these communication campaigns contained information on perceived susceptibility, severity, benefits, barriers, cues to action and self-efficacy. Therefore the communication campaigns were guided by the health belief model. Those who had participated in the campaigns and those who had not were in agreement that the campaigns lacked reach and repetition. These are some of the attributes of effective health communication (US Office of Disease Prevention and Health Promotion, 2000).

All the psychiatrists and nurses interviewed indicated that people give mental health and mental illnesses meanings associated with madness. They said that people did not look at mental illnesses as a form of sickness.

A psychiatrist said:

*'People think that being mentally ill ni kuwa mwenda wazimu. Even patients say 'nimekuwa mwenda wazimu' when they are brought here. And they believe that it is caused by either witchcraft or curses. Nothing else.'*

This was supported by all other psychiatrists and nurses interviewed. Meaning is the first premise of the symbolic interactionism theory. All the psychiatrists and nurses interviewed said that their greatest challenge has been to change this perception and make people know that mental illnesses are illnesses like any other and not madness. They said that they also explain that these illnesses are of different types with different causes.

Asked how the language that people use in reference to mental health and mental illnesses promote or hinder knowledge of mental health, all the psychiatrists and nurses said that the language that majority of the people use is stigmatising.

A psychiatrist said:

*'Every time a patient is brought, the relatives will say ameruka kichwa. This is a very common expression. And it comes from those who are educated and those who are not. It shows that people do not know what mental illnesses are.'*

The psychiatrists and nurses said that this stigmatising language was a great hindrance to knowledge of mental health issues. They said this made many people to hide their mentally ill and not to bring them to hospital. Language is the second premise of the symbolic interactionism theory.

The last question the doctors and nurses were asked was how people's thoughts on mental health and mental illnesses promote or hinder knowledge of mental health. The psychiatrists and nurses interviewed said that thoughts that mental illnesses are caused by witchcraft were a major hindrance to promoting knowledge of mental health. They said that that is the reason why most people with a mentally ill relative will first of all consult a witchdoctor and when it has failed, they come to the hospital. Normally they come to the hospital when the condition has worsened. The

psychiatrists and nurses interviewed said that even those who are mentally ill and have been brought to hospital do not believe that they will recover and lead normal lives again.

A psychiatrist said:

*‘Because of these thoughts, most patients do not even want to take their medicine. You have to really plead with them.’*

Thought is the third premise of the symbolic interactionism theory which is important to knowledge and attitude. The thoughts that people have about the causes of mental illnesses and who is affected are expressed through their language. The language that people use and their thoughts about mental illnesses are a reflection of their knowledge and attitudes about mental health issues.

#### **4.3: Evaluation of the effectiveness of communication campaigns for mental health conducted in Nairobi County**

The third objective of this study was to evaluate the effectiveness of communication campaigns for mental health. To do this, the study used arguments by Wallack and Dorfman (2001) and Healthy People 2010 (US Office of Disease Prevention and Health Promotion, 2000) on what constitutes effective health communication campaigns.

Wallack and Dorfman (2001) argue that effective health communication campaigns are characterized by at least three important factors. They argue that effective health communication campaigns are more likely to use mass communication and behaviour change theory as a basis of campaign design, they are more likely to use formative research such as focus group to develop messages and inform campaign strategy and they are more likely to link media strategies with community programs thus reinforcing the media message and providing local support for desired behaviour changes.

The communication campaigns for mental health conducted in Nairobi County do not fully meet the first criterion of being based on mass communication and behaviour change theory. The data collected from the secondary school students, interviews with psychiatrists and nurses and the newsletter and leaflets used indicate that they are based on some components of the health belief model. These include perceived susceptibility, perceived severity and perceived benefits. They leave out perceived barriers, cues to action and self-efficacy.

The second criterion that Wallack and Dorfman (2001) say effective health communication campaigns should meet is to use formative research such as focus group to develop messages and inform campaign strategy. The interviews conducted with psychiatrists and nurses show that the planners of these campaigns do not carry out research among the target audience before developing messages for the campaigns. The psychiatrists and nurses also explained that they were not involved in the development of messages disseminated during these campaigns. These messages therefore lack the input of key stakeholders. They are not likely to achieve great impact as they leave out important aspects.

The third criterion that Wallack and Dorfman (2001) suggest is that health communication campaigns are more likely to link media strategies with community programs thus reinforcing the media message and providing local support for desired behaviour changes. Communication campaigns for mental health in Nairobi County do not use media to spread their message. However, the fact that they take the campaigns to churches, schools and community centres and they involve parents, church and political leaders shows that they seek community support in reinforcing their messages.

The US Office of Disease Prevention and Health Promotion (2000) suggests that effective health communication should have accuracy, availability, balance, consistency, cultural competence, evidence base, reach, reliability, repetition, timeliness, and understandability.

The data obtained from the newsletters and leaflets used for the communication campaigns for mental health conducted in Nairobi County and that from the psychiatrists and nurses indicates that the campaign messages are accurate. What is communicated in the newsletters and leaflets does not contradict the explanations of psychiatrists, nurses, the World Health Organization and the World Federation for Mental Health.

Availability refers to placement of health message where the audience can access it (US Office of Disease Prevention and Health Promotion, 2000). The leaflets, newsletters, letters and banners used during the campaigns are only accessible to those who go to the hospital when marking World Mental Health Day. Those who are not able to attend the celebrations do not access these materials. Therefore the campaigns lack availability.

Regarding the attribute of balance, the US Office of Disease Prevention and Health Promotion (2000) says that this refers to the presentation of the benefits and risks of potential actions or recognition of different and valid perspectives on the issue. The leaflets and newsletters sampled had only the benefits of accessing treatment for mental health in hospitals. They did not focus on the risks of the medicines used for treating mental illnesses. They also did not contain any information on different and valid perspectives. For instance, one psychiatrist said that there is useful collaboration between mental health workers and witchdoctors in Uganda. She said that in Kenya witchdoctors are shunned by health workers. She therefore suggested that these witchdoctors need to be made aware of mental illnesses and what they can do and not do. This view recognises that witchdoctors can make a contribution in treating or managing mental illnesses. Recognizing the role that witchdoctors can play in treating and managing mental health problems and empowering them with necessary knowledge can help end secretive activities and help to prevent cases of mental illnesses becoming severe because of being taken to witchdoctors who cannot treat them.

Consistency is an attribute that refers to the content of a health communication campaign remaining internally consistent over time and also consistent with

information from other sources (US Office of Disease Prevention and Health Promotion, 2000). The leaflets and newsletters sampled had content which was consistent with information presented from other sources such as the World Health Organization and World Federation for Mental Health.

The attribute of cultural competence refers to the design, implementation, and evaluation process that accounts for special issues for select population groups, such as ethnic, and also educational levels and disability (US Office of Disease Prevention and Health Promotion, 2000). This requires creation and presentation of messages that consider the culture and beliefs of different communities. To do this, members of the target audience should be involved in designing the messages to be conveyed. Data obtained from the doctors and nurses interviewed shows that the audience is not involved in designing the mental health messages disseminated. Similarly, the leaflets and newsletters used for 2012 and 2013 did not have any evidence of consideration of the target audience's culture or their participation in the process.

Evidence base is the next attribute that according to the US Office of Disease Prevention and Health Promotion (2000) effective health communication campaigns should have. This refers to information that is disseminated during campaigns being based on relevant scientific evidence that has undergone comprehensive review and rigorous analysis to formulate practice guidelines, performance measures and review criteria. Data collected from newsletters, leaflets and interviews indicates that the messages presented in the communication campaigns for mental health in Nairobi County are similar to those presented by the World Health Organization and the World Federation for Mental Health. However, the messages are not based on reviews of what has been disseminated in previous campaigns and what objectives have been achieved. Therefore these campaigns do not fully meet the evidence base principle.

The next attribute is that of reach. This refers to the content getting to or being available to the largest possible number of people in the target population (US Office of Disease Prevention and Health Promotion, 2000). The communication campaigns do not reach many people as they are conducted in Mathari Hospital and the

neighbouring schools, community centres, churches and homes. Furthermore, they do not use newspapers, radio, television or even the Internet which can reach more people than leaflets and newsletters.

The attribute of reliability refers to the source of the content being credible, and the content being kept up to date (US Office of Disease Prevention and Health Promotion, 2000). Just like accuracy, consistency and evidence base, the communication campaigns have reliable messages. This is because the messages are prepared by Mathari Hospital in conjunction with the Ministry of Health. These are credible sources for health information.

Repetition is the next attribute of effective health communication campaigns. It refers to the continued or repeated delivery of/ access to the content over time both to reinforce the impact with a given audience and to reach generations (US Office of Disease Prevention and Health Promotion, 2000). The communication campaigns for mental health conducted in Nairobi County lack this attribute. The Nurses' Week takes place for one week in May while campaigns to mark the World Mental Health Day take place for one week in October. These campaigns cannot achieve substantial impact among the audience. To achieve such impact, the campaigns should be conducted continuously.

The next attribute is timeliness. This ensures that the content is provided or available when the audience is most receptive to, or in need of, the specific information (US Office of Disease Prevention and Health Promotion, 2000). Messages for mental health are required all the time. The communication campaigns conducted in Nairobi County lack this attribute.

The last attribute is understandability. It refers to the use of language and format that is appropriate for the specific audience (US Office of Disease Prevention and Health Promotion, 2000). The data obtained from the students, psychiatrists, nurses, newsletters and leaflets shows that the messages are understandable to an audience that is literate and that speaks English. An audience that does not know English

cannot understand it. It is therefore not for everybody, yet all people are susceptible to mental illnesses.

Overall, the communication campaigns for mental health conducted in Nairobi County are not effective since they are not based on mass communication and behaviour change theory, they do not use formative research to develop messages and inform campaign strategy and they do not link media strategies with community programs. They also lack availability, balance, cultural competence, reach, repetition, evidence base, timeliness and understandability.

#### **4.4 The demographic factors which influence mental health behaviour change**

The fourth objective of this study was to analyze the demographic factors which influence mental health behaviour change. Gender, age and socioeconomic status became evident as the demographic factors which influence mental health behaviour change.

The data collected indicated the possibility of female students being more knowledgeable about mental health issues than male students. Similarly, older students showed more knowledge of mental health than younger students. This therefore indicates the likelihood of female and older students adopting positive mental health behavior change than their male and younger counterparts. The first indicator that female students were more knowledgeable about mental health issues than male students was their responses to the question about the types of mental illnesses. Out of the 6 respondents who indicated that depression, dementia, post-traumatic stress disorder and schizophrenia were mental illnesses, 5 were female and 1 was male. Of the 6 respondents, 3 were aged 17 and 2 were aged 16. 1 was aged 15.

The second indicator that female and older respondents were more knowledgeable about mental health than male and younger students was the responses obtained on the causes of mental illnesses. Among the 38 students who chose witchcraft as a

cause of mental illnesses, 13 were female. 6 were aged 13, 5 were aged 14, and 2 were aged 15. The remaining 25 respondents who chose witchcraft as a cause of mental illnesses were male. 13 were aged 14, 7 were aged 15, 3 were aged 16 and 2 were aged 17. Out of the 33 respondents who chose curses as a cause of mental illnesses, 9 were female and 24 were male. Of the female students who chose curses as a cause of mental illnesses, 5 were aged 13, 3 were aged 14 and 1 was aged 15. For the male students, 11 were aged 14, 6 were aged 15, 5 were aged 16 and 2 were aged 17. From these responses, it can be argued that since fewer female students chose witchcraft and curses as causes of mental illnesses, they have more knowledge of mental health issues than male students. Equally, older students appeared to be more knowledgeable than younger students as they did not choose witchcraft and curses as causes of mental illnesses. Those who chose witchcraft and curses as causes of mental illnesses are likely to have negative mental health behavior such as not taking their mentally ill relatives to hospital. Data obtained from the psychiatrists and psychiatric nurses interviewed corroborated this view. One psychiatrist observed that:

*People who believe that mental illnesses are caused by witchcraft and curses cannot come to hospital for treatment when they are mentally ill. They cannot even bring their mentally ill relatives to hospital. Instead they look for a mganga or offer traditional sacrifices which they think will heal their relatives.*

Differences in knowledge levels of mental health were also seen in the responses regarding confidence to seek information about or treatment for mental illnesses. Whereas 316 respondents comprising 95% responded positively, 18 respondents comprising 5% responded negatively. Among the 18 who responded negatively, only 3 were female students. The rest were male. This further indicates that female respondents are more knowledgeable about mental health issues and they are more likely to have positive mental health behavior than their male counterparts.

The psychiatrists and psychiatric nurses interviewed said that more women were confident to seek information and treatment for mental illnesses than men. One of the doctors said:

*Women are more confident to seek information and treatment early. Men are mostly brought when their illnesses are chronic. They never come on their own. It is rare. Most don't come on their own.*

The responses to the question on what respondents will do to a mentally ill relative or friend also indicated the level of knowledge and the respondent's mental health behavior. Out of the 320 respondents who indicated that they will take their mentally ill relatives or friends to hospital, 97 were female while 223 were male. All the 14 respondents who indicated that they will take their mentally ill relatives or friends to a witchdoctor were male. 8 were aged 15, 5 were aged 16 and 1 was aged 17. Based on these responses, it is still evident that female students have more knowledge of mental health than male students. It can also be argued that younger students are more likely to have negative mental health behavior than older ones.

Data collected from the psychiatrists and psychiatric nurses corroborates the finding that female respondents are more likely to take their mentally ill relatives to hospital than men. One of the doctors interviewed said:

*What I have seen for many years is that more women bring their mentally ill relatives to hospital than men. I don't know whether men are too busy or it is because of culture.*

A nurse added:

*Women are the ones who frequently bring their mentally ill relatives to hospital. They bring their children and even husbands. Men do not bring patients to hospital. If a man's wife is mentally ill, she will be brought by other women relatives. Not her husband. Again many men abandon patients at the hospital. They never even come to visit them. Women will never abandon them. They visit them until they recover and then take them home.*

Out of the 316 respondents who indicated that they will interact with those who have been mentally ill but have recovered, 93 were female while 223 were male. Among the 18 who indicated that they will not, 4 were female while 14 were male. 7 were

aged 13, 9 were aged 14 and 2 were aged 15. Unwillingness to interact with those who were mentally ill but have recovered is part of the discrimination against the mentally ill. It is a manifestation of stigma.

Further, the data obtained on awareness of mental health communication campaigns could indicate that female and older students have more knowledge of mental health than male and younger students. This is because out of the 11, or 3% of the students who indicated that they were aware of communication campaigns for mental health, 7 were female and 4 male. Out of the 7 female students, 5 were aged 17 and 2 were 17 and above. Among the male students, 1 indicated that he was 16 years old and 3 were 17 years old. Therefore female students are more likely to have positive mental health behavior than male students. Similarly, older students are more likely to have positive mental health behavior than younger students.

Additional evidence of a possibility of female and older students being more knowledgeable about mental health issues than male and younger students can be seen from the fact that all the 3 students who indicated that they had attended communication campaigns for mental health were female. One was aged 17 and two were aged 17 and above. These responses can also be used to argue that female and older students are more likely to have positive mental health behavior.

The psychiatrists and psychiatric nurses interviewed also indicated that more women attended mental health communication campaigns than men. One of the nurses who had attended the communication campaigns for mental health said:

*More women always attend the communication campaigns for mental health that we conduct at Mathari Hospital. I think it is because they are the most affected. They might be the ones suffering or their children or husbands. So they always come to get more information.*

The reason why female students could be more knowledgeable about mental health issues than male students is because women tend to be more vulnerable to mental illnesses than men. Mirowsky and Ross (1989) say that women experience higher rates of psychological distress, including anxiety, depression, worry and

demoralization. In a national survey undertaken in 2007, of Australians aged over 16 years, 23% of males and 30% of females aged 16 to 24 years had experienced a mental disorder in the past 12 months (Slade et al., 2009).

Women's vulnerability to mental illnesses more than men seems not to be limited to geographical location or economic status. Patel, Araya, de Lima, Ludermir and Todd (1999) studied four low- and middle-income countries (Zimbabwe, Chile, Brazil and India) and found that common mental disorders were significantly associated with the female gender. Similarly, results from studies in the developed world indicate that women have on average about a two-fold increased risk for depression and anxiety disorders over men (Belle & Doucet, 2003; Nolen-Hoeksema & Keita, 2003).

Since studies indicate that common mental disorders are strongly associated with poverty and its associated variables of adversity, insecurity, rapid social change, social exclusion, reduced access to social capital and malnutrition (Lund et al., 2010; Flisher et al., 2007), and that women are more affected by poverty than men (Patel & Kleinman, 2003), it can be argued that this is the reason why female secondary school students in Langata District are more knowledgeable about mental illnesses than the male students.

Furthermore, the World Health Organization (2002) argues that during adolescence, girls have a much higher prevalence of depression and eating disorders and engage more in suicidal ideation and suicide attempts than boys. Boys experience more problems with anger, engage in high-risk behaviours and commit suicide more frequently than girls. In general, adolescent girls are more prone to symptoms that are directed inwardly, while adolescent boys are more prone to act out (WHO, 2002).

In this study, out of the 36 respondents comprising 11% of the respondents who indicated that they were vulnerable to mental illnesses, 29 were female while 7 were male. This is also an indication of higher knowledge levels among female respondents than male respondents concerning who is vulnerable to mental illnesses. It indicates awareness among the female respondents that the high levels of poverty

and other factors such as insecurity and drug abuse which are more widespread in informal settlements such as Kibera where most of the respondents were drawn from expose them more to mental illnesses.

Regarding age as a factor that influences mental health behaviour, data collected from the psychiatrists and psychiatric nurses interviewed indicated that younger and middle-aged people are more likely to have positive mental health behavior than older people. One psychiatrist said that:

*Most of the people who attend communication campaigns for mental health and seek treatment when mentally ill are young. The majority are between 20 to 40 years. They are either in some college, unemployed, self-employed or working. Young people.*

A nurse said:

*The majority of our patients are younger people. So they are the ones who ask more questions about mental illnesses than older people. Even when they are ill, they come for treatment early. Some make a follow-up until they are completely healed. Older people patients are not many. The few I have seen are stubborn and some do not want medicine. They give up easily.*

Differences were also seen along gender lines regarding some of the sources of information about mental health. Whereas all the 334 respondents indicated that family and friends were their source of information, 218 respondents indicated that their source of information was teachers. Out of these, 95 were female and 123 male. Among the 211 who indicated that their source was the media, 45 were female and 166 male. Based on these responses, it could be argued that female students rely on family, friends and teachers for information on mental health more than male students. On the other hand, male students rely more on the media for information on mental health than female students. This information could be useful for mental health communication campaigners in choosing the medium of communication.

Regarding socioeconomic status as a factor that influences mental health behavior change, the psychiatrists and psychiatric nurses interviewed said that most of the people who brought their mentally ill to hospital, followed through with treatment and accepted them back were those from higher socioeconomic status. One doctor said:

*Those who are well off do not even bring their patients to Mathari Hospital. They take them to private mental health clinics. They also support them until they recover because they know that mental illnesses are like other forms of illnesses. Also, the treatment of mental illnesses is expensive. Many poor people cannot afford the money required for medication. Consequently, they detain the mentally ill at home, take them to witchdoctors or bring them and abandon them in here.*

#### **4.5 Discussion**

According to Piotrow and Kincaid (2001), communicating effectively with young people is the leading health communication challenge in the 21<sup>st</sup> century. They say that this is because young people are known for their risk-taking propensities and lack of concern regarding future hazards. Such behaviours expose them more to mental illnesses. As a result, it is important that communication campaigns for mental health target young people. However, it is evident that communication campaigns for mental health conducted in Nairobi County do not reach many secondary school students in the county. This is because the students are not targeted by these campaigns yet research shows that adolescence and young adulthood is the age when many mental disorders first emerge (Seroczynski, Jacques & Cole, 2003; Wunderlich, Bronisch, Wittchen & Carter, 2001). Studies also indicate that young people aged 12-25 are most at risk of developing mental disorders, and that this is a life stage where concerted effort is required to prevent the development of adult and chronic mental health problems (Rickwood, 2010; McGorry et al., 2007; Kessler et al., 2005). Further, studies have indicated that schools are one of the most effective agencies for the promotion of health, including mental health (Weare, 2010). Other

studies have also argued that because of their central role in the lives of children and families and their broad reach, schools are the primary setting in which many initial concerns arise and can be effectively remediated (Greenberg, 2010; Rutter et al., 1979). In addition, studies have indicated that once the students have gained knowledge of mental health they will act as sources of information for their families, friends and neighbours (Rahman et al., 1998). As a result of these campaigns not targeting secondary school students in many schools in Nairobi County, the level of knowledge of mental health among these students is very low. Data collected during the study indicates that they do not know many mental illnesses and the causes of these mental illnesses. This is a key element of knowledge of mental health. Knowing mental illnesses and their causes will enable one to also know who is susceptible and what one can do to prevent himself or herself from contracting these mental illnesses. This finding of secondary school students having low knowledge levels of mental health is similar to findings from other studies that, overall, adolescents' knowledge of mental health disorders is limited (Hess et al., 2004; Olsson & Kennedy, 2010).

With the low knowledge levels, many young people in secondary schools will not be able to detect symptoms of mental illnesses early or even seek timely interventions. Olsson and Kennedy (2010) observe that an adolescent's knowledge of mental disorders is directly tied to help-seeking intentions. Similarly, it has been shown that improving mental health literacy tends to decrease levels of mental health stigma (Hart et al., 2014). Therefore, the low levels of mental health among secondary school students in Nairobi County could be evidence of high levels of stigma against mental illnesses.

It is also clear that the communication campaigns do not use a variety of mass media yet mass media has been seen to be effective in health communication due to its wide reaching, appealing, powerful nature as well as cost effectiveness (Randolf & Viswanath, 2004; Tones & Green, 2004). The communication campaigns conducted as part of the events to mark World Mental Health Day at Mathari Hospital use workshops, symposia, newsletters, leaflets and banners placed at the entrance to the

hospital. These cannot reach as wide an audience as television, radio, newspapers or the Internet would. For instance, broadcast media have been shown to be effective in destigmatizing psychiatric illness (Hickling, 1992) and promoting acceptance of people with mental disorders (Barker et al, 1993). The limited use of mass media reduces the advantages that mass media brings to a communication campaign. Donohew et al (1998) say that to be most effective, it is wise to plan multiple message strategies for reaching vulnerable audiences with health education information, utilizing the communication principles of redundancy and reinforcement to enhance message exposure and impact. Multiple messages can help to capture audience attention, reinforce message content, and illustrate key health education concepts (Kreps, 2008).

Kakuma et al (2010) report that in South Africa, newspapers, television shows, performing arts, radio shows, brochures and pamphlets are used for international events such as World Mental Health Day and Mental Health Awareness month. They say that organizations associated with mental health issues have worked closely with the media in providing accurate information about mental illnesses and promoting mental health. For instance, Kakuma et al (2010) say that the Mental Health Information Centre (MHIC) works with prominent newspaper and magazine journalists in preparing articles on mental health problems such as depression, panic disorder, social phobia, and obsessive-compulsive disorder. They provide information in English, Afrikaans, Xhosa and Zulu. In contrast, the newsletters and leaflets prepared by Mathari Hospital to mark World Mental Health Day are all in English. This could also reduce the number that is able to access them because not all members of the target audience are able to understand messages written in English. Furthermore, collaboration between organizations associated with mental health issues and media is nonexistent in Kenya. In fact one of the psychiatrists said:

*‘Media are not interested in promoting knowledge of mental health. They do not give World Mental Health Day any publicity. They have completely ignored mental health issues. This is part of the stigma associated with mental illnesses.’*

One of the characteristics of effective health communication is that it should be creative in support of strategy (Schiavo, 2007). This creativity is seen in the designing of messages and selection of channels of communication considering the age of the target audience, preferences, accessibility and cost effectiveness, among other factors. Parrott (1995) observes that the medium used to present campaign messages, such as a pamphlet, poster, television program, popular song, or video game, affects the psychological distance between the message and a young audience or user group. Parrott explains that a message conveyed through a pamphlet might not seem personally relevant to adolescents, but if they encountered the same content in a video game, they might perceive it as ‘their’ medium and believe that the message is meant for them. Another way media campaigns can remove psychological distance is through characters, settings, events, humor, artwork, music, and other stylistic features that appeal to an age group. With psychological distance reduced, by the choice of medium and the nature of the content, young users who might not seek out a campaign’s messages in other venues can become interested and involved (Parrott, 1995).

Planners of mental health communication campaigns in Kenya also need to be creative in order to reach a wide audience, especially among young people. One way this can be done is through use of theatre. In their study assessing the benefits of theatre for health in Kenya, Oanda and Steno Diabetes Center (2012) observe that the popular theatre approach is intended to empower people at the grassroots against the forces responsible for poor health and disease. This is done through adopting and promoting dialogue with an emphasis on critical reflection through understanding and active participation in a communicative environment. Health theatre also facilitates the process of sharing of experiences by encouraging collaborative reflection by way of inter-community artistic exchanges and documentation of experiences. Through the use of people’s theatre, communities are empowered by listening to their health concerns and then encouraging them to voice and solve their own problems.

The messages disseminated during the mental health communication campaigns are not firmly grounded on theories of health communication. The data obtained from

the newsletters and leaflets indicates that the messages contain some components of the health belief model and leave out others. Those that they contain are perceived susceptibility, perceived severity and perceived benefits. They do not contain the components of perceived barriers, cues to action and self-efficacy. These are equally important components and should be included in the campaign messages to support a true understanding of target audiences and groups as well as the health communication environment among health communication practitioners and other members of the communication team (Schiavo, 2007).

The messages are also not based on clear premises of the symbolic interactionism theory. They leave out information on beliefs about the causes of mental illnesses and their treatment. This would have helped the target audience understand the messages better since the messages explain the language the target audience uses when referring to mental illnesses, the meanings they have given mental illnesses and the thoughts they have about these mental illnesses as individuals and communities.

The communication campaigns for mental health conducted in Nairobi County are not audience-centred. This is because the nurses interviewed said that they never consulted the secondary school students they were targeting to find out which mental health problems they were facing. Without the active participation of members of the target audience, the communication campaigns will be ineffective.

The data collected indicated that psychiatrists at the Mathari National Teaching and Referral Hospital are not as actively involved in the communication campaigns for mental health as are the psychiatric nurses. The doctors only interact with the patients and care givers when treating the patients or being consulted. But they are not actively involved in the community outreach programmes or events to mark World Mental Health Day. The efforts of the nurses alone may not be sufficient in effectively raising levels of awareness.

The communication campaigns conducted by the Mathari Hospital during the Nurses' Week in May, community outreach programmes and those before and during World Mental Health Day in October are not enough to raise knowledge levels of

mental health. Since each of these campaigns takes one week, that means all of them are conducted in three weeks in a year. This is not enough to create a meaningful impact. Therefore, these campaigns lack repetition which is a key attribute of effective health communication campaigns (US Office of Disease Prevention and Health Promotion, 2000). In South Africa, Kakuma et al (2010) report that the South African Federation for Mental Health (SAFMH) which is a national not-for-profit NGO affiliated with African Regional Council for Mental Health and World Federation for Mental Health currently has three mental health campaigns every year. March is Intellectual Disability Awareness month, July is Psychiatric Disability Awareness month, and October is Mental Health/well-being Promotion and Awareness Month. Activities in October are mainly targeted around World Mental Health Day (October 10th), where the focus is more towards prevention through healthy lifestyles rather than diagnosis and treatment. During these months, many members of the SAFMH can be seen, heard and read in the media discussing mental health issues. Although Kakuma et al (2010) say that these campaigns have not been evaluated and reported in scientific journals and in annual reports of the various organizations involved, they are more likely to increase awareness and reduce stigma than those in Kenya because they are conducted for longer periods and they use mass media that reaches a wider audience.

The data collected from the students, newsletters and leaflets as well as psychiatrists and psychiatric nurses does not show any evidence that the messages presented during the campaigns were clearly designed for specific target audiences. Effective health communication should be strategic. It should embrace strategic communication which, according to (Kotler & Lee, 2005; Andreasen, 1997; Albrecht, 1996; Maibach, 2002), refers to the planned application of key social marketing principles in health communication efforts, such as conducting in-depth audience analyses to learn more about and to segment target audiences, adapting persuasive message design and delivery to the unique characteristics and orientations of targeted groups, and introducing culturally-sensitive interventions for reinforcing the adoption of health behaviors by targeted audiences.

Effective health communication campaigns should segment target audiences so that resources are used wisely to send the right messages to those who are in need of them. Atkin (2001) argues that there are two major strategic advantages of segmentation. First, message efficiency can be maximized if subsets of the audience are ordered according to importance and receptivity. Second, effectiveness can be increased if message content, form, and style are tailored to the predispositions and abilities of the distinct subgroups.

In their studies regarding the importance of strategic communication to increase knowledge levels of cancer among the most vulnerable segments of the population, Kreps (2005a) and Thomas et al., (2004) observe that the need for effective strategic communication about health risks and benefits is particularly acute, yet also tremendously complex, for reaching the most vulnerable health care consumer populations who are at greatest risk than other segments of the population. The use of strategic communication is equally important in enhancing knowledge of mental health among segments of the population most vulnerable to mental illnesses. Similarly, Kreps (2005b), Ashton et al., (2003) and Freeman (2004) observe that populations vulnerable to cancer are typically the poorest, lowest educated, and most disenfranchised members of modern society. Studies have also indicated that those vulnerable to mental illnesses are the poor (Palmer, 2011; WHO, 2010; Othieno et al., 2008; Jane-Llopis & Braddick, 2008; Patel, 2005; Patel & Jane-Llopis, 2005; Barry & McQueen, 2005; Bhugra, 2004; Melzer, Fryers & Jenkins, 2004; Danso, 2002). Vulnerable populations often have significant health literacy difficulties and are challenged by intercultural communication barriers to accessing and making sense of relevant health information (Kreps, 1996; Chang et al., 2004; Kreps, 2005a). Kreps (2007) argues that these consumers are often confused and misinformed about the causes of cancers, prevention of cancers, strategies for early detection of cancers, and the optimal treatments for cancers which leads to serious errors, omissions, and resultant health problems. These claims could also be relevant to those vulnerable to mental illnesses. As a result, strategic communication emphasises the use of culturally-sensitive health communication intervention programs to effectively reach vulnerable populations. A large body of research literature illustrates that culturally-

sensitive health communication intervention programs are likely to be effective at reaching and influencing vulnerable populations because these programs are designed to be relevant, interesting, and easily understood by target audiences (Friedman & Hoffman-Goetz, 2006; Houston et al., 2002; Kreps, 1996, 2005a, 2005b, 2006; Kreps & Kunimoto, 1994; Kreps & Massimilla, 2002; Lee et al., 2006; Liang et al., 2004; Muturi, 2005; Santhya & Dasvarma, 2002; Wood, 1989).

Kreuter and McClure (2004) argue that consumers' unique cultural backgrounds and orientations have powerful influences on their communication practices that must be carefully accounted for in strategic health communication efforts. It is therefore important for planners of mental health communication campaigns in Kenya to identify and examine the relevant cultural issues that are likely to influence the ways consumers, particularly members of vulnerable populations, respond to communication about susceptibility to mental illnesses, severity, prevention, detection, and control. Several of the key cultural variables that influence health communication outcomes include the unique health beliefs, values, norms, and expectations that different consumers bring to health situations (Kreps & Kunimoto, 1994). It is also important to assess consumers' culturally-based language skills and orientations, their health literacy levels, their motivations to seek health information, and their unique media use patterns (Youmans & Schillinger, 2003). Examination of these key cultural factors provides relevant information for determining how to best design and deliver key messages for effectively communicating complex health information to diverse populations (Chew et al., 2004; Kreps, 2006; Kreps & Kunimoto, 1994).

It is also not clear whether communication campaigns for mental health held in Nairobi County have any set objectives they are meant to achieve. Furthermore, they have never been evaluated to establish what has been achieved and what has not. There is no available literature to show whether evaluation of previous communication campaigns has ever been conducted and what the findings were. As a result, it is not clear what previous communication campaigns for mental health were designed to achieve, how, what was achieved and what worked or did not. Evaluation of health communication campaigns is important because it enables:

focusing health communication staff, partners, and key audiences on shared goals; clarifying the overall program goal and objectives; identifying and comparing effective health communication practices; improving service delivery (for example, in the case of health communication programs that also offer specific public or community services or communication consultants and agencies); adjusting the program in progress by refining strategies and messages; assessing the overall cost-effectiveness of the program; determining program reproducibility and sustainability; communicating results to key program stakeholders and audiences; and competing for economic and human resources (Schiavo, 2007). Furthermore, as Waisbord, Shimp, Ogden & Morry (2010) suggest regarding communication campaigns for polio, building in a robust system for monitoring and evaluation of communication processes and impact is essential for reaching the most marginal, vulnerable, and overlooked populations. This can be very useful especially for people who live in informal settlements such as Kibera, which is found in Langata District where this study was conducted and who are therefore exposed to mental illnesses.

One psychiatrist observed that:

*‘These communication campaigns are routine. They are not properly planned with the needs of a specific audience in mind and a specific outcome within a given period.’*

As a result, these campaigns are not effective in enhancing knowledge levels. Campaigns conducted repeatedly over long periods of time and targeting a specific audience with a specific message and objective are likely to be successful (Jane-Llopis, Barry, Hosman & Patel, 2005; Rogers, 1996; Sogaard & Fonnebo, 1995; Barker et al., 1993).

## CHAPTER FIVE

### **SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

#### **5.0 Introduction**

This chapter presents a summary of the study, the conclusions drawn, recommendations and areas for further research. The summary explains the findings of the study on each objective. The conclusions describe the nature of communication campaigns for mental health conducted in Nairobi County and generally in Kenya and their limitations. In the recommendations section, a number of measures which can be put in place to improve communication campaigns for mental health are discussed. The last section in this chapter focuses on areas for further research. The study suggests that further research be conducted on communication campaigns for mental health using different methodologies to assess their effectiveness. These researches will test the findings of this study and contribute to knowledge in health communication.

#### **5.1 Summary**

The first objective of this study was to assess the knowledge levels of mental health among secondary school students in Nairobi County. The study found that knowledge levels of mental health among secondary school students in Nairobi County were very low. This is because out of the 334 students sampled, only 6 knew that depression, dementia, post-traumatic stress disorder and schizophrenia were mental illnesses. The rest indicated either one or two among these were mental illnesses. Furthermore, only 11 out of 334 students were aware of communication campaigns for mental health conducted annually by Mathari National Teaching and Referral Hospital in conjunction with the Ministry of Health. This represents 3% of the students sampled. In addition, only 3 out of 334 had attended the communication campaigns for mental health. This represents 1% of the students sampled. Still, only 5% of the respondents indicated that mental illnesses can be caused by infections,

6% indicated that they can be caused by injuries and 3% by other diseases. Knowledge of the causes of mental illnesses is one of the basic facts that those who have knowledge of mental health are supposed to have. The percentages of those who indicated these causes are low.

The fact that 97% of the students sampled lack awareness of communication campaigns for mental health and 99% had not attended any of the communication campaigns indicates that the students miss all the messages disseminated about mental health issues every year. This is in line with available literature which indicates that generally knowledge of mental health issues is low and stigma high (Bocha, 2012; KNCHR, 2011; Atwoli, 2011; Kiima & Jenkins, 2010; Ndeti et al., 2009; Othieno et al., 2008; Griffin, 2008; Brundtland, 2001). From the data collected, the low knowledge levels can be attributed to various reasons. One, the communication campaigns for mental health do not have secondary school students as a target audience. This applies especially to the campaigns conducted prior to and on World Mental Health Day though one of the psychiatrists had indicated during the interviews that they send letters to several schools inviting students to attend. The messages communicated are not tailored for any particular audience, least of all secondary school students. Two, the campaigns are not designed with specific objectives and clear messages that can be used to achieve them. Three, the campaigns are only conducted in the schools around Mathari Hospital. They are not conducted in schools throughout Nairobi County. Finally, the messages conveyed especially during community outreach programmes seem to be the same from year to year. They lack creativity and do not reflect the changing environment. Such messages will not be interesting to those who might have heard them before.

The second objective was to analyze the messages communicated during communication campaigns for mental health in Nairobi County. The messages communicated were obtained through use of questionnaires administered on secondary school students, interviews conducted among psychiatrists and psychiatric nurses and analysis of the messages contained in newsletters and leaflets used when marking World Mental Health Day in the years 2012 and 2013 at Mathari National

Teaching and Referral Hospital. The responses obtained from secondary school students who attended communication campaigns for mental health indicate that the messages disseminated during these communication campaigns have all the components of the health belief model. These are perceived susceptibility, perceived severity, perceived benefits, perceived barriers, cues to action and self efficacy. These responses are similar to those obtained from the psychiatrists and psychiatric nurses interviewed. However, the data obtained from newsletters and leaflets used for communication campaigns for mental health conducted prior to and during World Mental Health Day in 2012 and 2013 indicates that the messages did not contain all the components of the health belief model. They lacked the components of perceived barriers to prevention and treatment of mental illnesses, cues to action and self-efficacy. These components are equally important in enhancing knowledge of mental health. Without the target audience knowing what could bar them from preventing mental illnesses or accessing treatment, and what could motivate them to embrace the health behaviour recommended and finally how easy it is to either prevent mental illnesses or seek treatment, they might not change their attitudes towards mental illnesses.

The fact that students, psychiatrists and psychiatric nurses who participated in the study provided information that differs from the information obtained from newsletters and leaflets could be an indication of different messages about mental health being communicated through different channels of communication. Apart from newsletters and leaflets, the other channels used for communication of mental health messages are posters, letters, banners, workshops and symposia. Effective health communication is supposed to ensure that all channels used for communication disseminate the same messages. This constitutes the attribute of consistency in health messages (Schiavo, 2007).

The findings also showed that the messages were not tailored for any particular audience. They were designed for all audiences. Atkin (2001) argues that such health messages cannot be effective. This is because each audience has its own unique health needs which are met in ways dissimilar from other audiences.

The third objective of the study was to evaluate the effectiveness of communication campaigns for mental health conducted in Nairobi County. The data collected from the secondary school students, printed materials used for World Mental Health Day communication campaigns and the psychiatrists and psychiatric nurses indicates that these communication campaigns are not effective in terms of enhancing knowledge of mental health. First, 323 out of 334 students, representing 97% of secondary school students indicated that they were not aware of these communication campaigns for mental health. Secondly, 331 out of 334 students, representing 99% said that they had never attended communication campaigns for mental health. Thirdly, the fact that these communication campaigns are not conducted in many schools so that many students can be reached indicates that they are not effective. This is despite the fact that available literature indicates that adolescents and young people between 12-25 are most at risk of mental illnesses (Seroczynski, Jacques & Cole, 2003; Wunderlich, Bronisch, Wittchen & Carter, 2001).

The fourth reason why these communication campaigns cannot be effective is that the newsletters used to disseminate messages on World Mental Health Day focus more on many other issues regarding Mathari National Teaching and Referral Hospital than the mental health theme for the year. The newsletters focus more on the various departments at the Mathari National Teaching and Referral Hospital and what their functions are. They also give more space to the challenges the hospital is facing in terms of infrastructure and what has been achieved through support from donors. Furthermore, the newsletters and leaflets express messages on mental health that lack key components of the health belief model such as perceived barriers, cues to action and self efficacy. They also do not contain important information regarding people's beliefs on mental illnesses and the language they use to describe mental illnesses and the mentally ill. These could help to explain the meanings people give mental illnesses and the thoughts they have about them as individuals and communities. Communicating all these will enable people know which beliefs constitute stigma and should be discarded and which strategies can be employed to effectively address such stigma and enhance knowledge of mental health.

Some psychiatrists confessed not to have been involved in these communication campaigns yet they are major sources of information about mental health. In fact, all the psychiatrists and nurses interviewed confessed that they have never been consulted when designing messages for these campaigns. Yet these are the people who are relied upon to deliver these messages to audiences. The campaigns therefore lack the input of key stakeholders. That is the fifth reason why these campaigns will not be effective in enhancing knowledge of mental health.

Similarly, these campaigns do not involve members of the audience in identifying their mental health needs and addressing them in a way that more people might be reached. They are not participatory. Schiavo (2007) says that effective health communication campaigns are participatory. They involve members of the target audience in the designing, implementation and evaluation of the campaigns.

The sixth reason why these campaigns will not be effective is because they are not conducted regularly. They are conducted once a year at specific periods. The Nurses' Week takes place in May while the World Mental Health Day takes place in October. Community outreach programmes take place in a week set aside for the same. Each of these campaigns takes a week. Cumulatively, these campaigns take three weeks in a year. This period is too short to create any meaningful impact, considering the fact that these campaigns have other limitations such as the area they cover which is around the Mathari Hospital and the fact that they do not use mass media such as radio, television and newspapers.

Another reason why these campaigns will not be effective is that they do not have clear objectives which they are meant to achieve within specific timelines and the messages are not designed in a manner that they will achieve set objectives. All stakeholders in the mental health communication campaigns should be aware of these objectives so that they can work towards achieving them. These stakeholders include psychiatrists, psychiatric nurses and even members of the target audience.

The last reason why these messages lack effectiveness is that no evaluation is done to know what has been achieved and what has not. For instance, data collected indicates

that each year during community outreach programmes which target schools, the messages are the same: drug and substance abuse. Yet mental health issues are many. Similarly, though the messages disseminated prior to or on World Mental Health Day are different, the fact that there is no evaluation means that they are communicated as routine and therefore achieve little if any impact.

The fourth objective of this study was to analyse the demographic factors that influence mental health behaviour change. Gender, age and socioeconomic status were found to be the major demographic factors that influence mental health behaviour change. The data collected from secondary schools indicated that female students had more knowledge of mental health and were more likely to have positive mental health behaviour than male students. This is because more female students indicated being aware of communication campaigns for mental health than male students. Furthermore, all the students who had attended communication campaigns for mental health were female.

In addition, the data collected from secondary school students also indicated that older students had more knowledge of mental health than younger students. Data from the psychiatrists and psychiatric nurses indicated that younger and middle-aged people were more knowledgeable about mental health than older people. Therefore younger people were likely to have positive mental health behaviour than older people. Those who had a higher socioeconomic status were also more knowledgeable about mental health and they were likely to have positive mental health behaviour than those from a lower socioeconomic status.

## **5.2 Conclusions**

The first objective of this study was to assess the knowledge levels of mental health among secondary school students in Nairobi County. Based on the data collected from secondary school students in Langata District, this study concludes that knowledge levels among secondary school students in Nairobi County are low. This is because most of the students do not know the types of mental illnesses and they are not aware of communication campaigns for mental health. They also do not know

important information such as the causes of mental illnesses and consequently who is susceptible to mental illnesses. These low knowledge levels are as a result of communication campaigns for mental health not being conducted regularly in schools and therefore not targeting secondary school students. Though the mental health messages are sometimes taken to schools, psychiatrists and psychiatric nurses indicated that they only visit schools around the hospital. Therefore campaigns do not reach schools which are not in the neighbourhood of the hospital.

The second objective of this study was to analyze the messages communicated during communication campaigns for mental health in Nairobi County. The study found that the messages communicated have some components of the health belief model such as perceived susceptibility, perceived severity and perceived benefits. The messages lack important components such as perceived barriers to seeking information about and treatment for mental illnesses, cues to action and self-efficacy. The study therefore concludes that the messages conveyed during communication campaigns for mental health are not effective since they do not contain some of the important components of health messages. These components will also influence attitude and behaviour change among target audience members in regard to mental health.

Furthermore, the study found that these messages do not include the beliefs and attitudes that constitute the meaning that people have towards mental illnesses and the mentally ill. This meaning is expressed through language which in turn reflects the thoughts that people have about mental illnesses and the mentally ill. These are important premises of the symbolic interactionism theory.

The third objective of this study was to evaluate the effectiveness of communication campaigns for mental health conducted in Nairobi County. Since the communication campaigns for mental health in Nairobi County are conducted in three separate weeks in a year, the study concludes that they are not effective in enhancing knowledge among the target audience. Health communication campaigns that are effective in terms of promoting knowledge and achieving behaviour change among

the target audience are held regularly. This refers to the element of repetition (US Office of Disease Prevention and Health Promotion, 2000).

Another reason why the communication campaigns are not effective is because they do not utilize the mass media effectively to reach the highest number of people. They only use newsletters, leaflets, placards, banners and letters which can only reach a few people, especially those who attend the campaigns and their relatives or friends.

The other reason that would make these campaigns ineffective is that their messages are only conveyed in English. Thus, they lock out those who are unable to read or understand English.

Additionally, the doctors and nurses at Mathari Hospital are not involved in designing the messages that should be disseminated to their target audience. Even the members of the target audience do not participate in the design of these messages. Without these key stakeholders being involved in designing the messages, their experiences and insights which constitute important information are left out. This makes the campaigns ineffective.

Lastly, the communication campaigns also lack evaluation. There is no evaluation done on what the messages conveyed were the previous year, what the goals and objectives were, which strategies were used to disseminate the messages, what outcomes were achieved and what challenges were met. Therefore the campaigns cannot be effective since they lack evidence base, another attribute of effective health communication campaigns (US Office of Disease Prevention and Health Promotion, 2000).

The fourth objective was to analyse the demographic factors that influence mental health behaviour change. The study found age, gender and socioeconomic status as the major factors affecting mental health behaviour change. Members of the female gender, younger people and those who have a higher socioeconomic status were found to be more knowledgeable about mental health. They were therefore more likely to have positive mental health behaviour.

### **5.3 Recommendations**

This study found that knowledge levels of mental health among secondary school students in Nairobi County were very low, the messages communicated during the campaigns were inadequate and the communication campaigns were ineffective. To enhance knowledge of mental health, the communication campaigns for mental health should be effective and the messages communicated during the campaigns be adequate. To achieve these objectives, the study recommends the adoption of several strategies.

To reach many secondary school students, communication campaigns for mental health should be conducted in as many secondary schools as possible, besides other settings such as hospitals, sports and social events and homes. This will enhance the knowledge levels of mental health among the secondary school students as well as the general population. With increased knowledge, people will be able to detect mental problems early and seek help. High levels of knowledge will also reduce the levels of stigma against mental illnesses and the mentally ill.

In addition, this study recommends that planners of communication campaigns for mental health target specific audiences who are vulnerable to mental illnesses with clear, accurate and timely messages which are relevant to their cultural backgrounds and information needs. To do this, they need to identify and segment audiences using strategic communication approaches. In addition, they need to design the communication campaigns recognising the important role that demographic factors such as age, gender and socioeconomic status play. They should also design messages using mass communication and behaviour change theories. Besides, they should disseminate their messages through a variety of mass media that is accessible and preferred by the vulnerable groups so that they can reach as wide an audience as possible with similar messages. These media include use of newspapers, television, radio and the Internet. The planners of communication campaigns for mental health can also employ the use of community-specific media such as poetry and theatre. This will be very effective in reaching the entire community, and more importantly young people, as it is entertaining and participatory. The messages communicated

will be culturally competent as members of the community will be involved in designing and disseminating them. Furthermore, the messages communicated during communication campaigns for mental health in Nairobi County should be expressed in both English and Kiswahili. This is to avoid locking out members of the target audience who are unable to read and understand English.

Another recommendation that this study makes is that communication campaigns for mental health held in Nairobi County and the entire country should be conducted regularly and for substantial periods so that they can achieve significant impact in terms of nationwide mass media-based publicity and information strategy in order to achieve wide penetration, put mental health issues on the cultural agenda and change the knowledge of and attitudes towards mental health problems.

This study also recommends that the communication campaigns involve all key stakeholders in identifying the mental health needs of target audiences, the objectives of the campaigns, the messages to be communicated and the communication strategies to be used. Among these stakeholders are doctors, nurses, and key leaders of audience segments. These will make the campaign messages targeted and tailored to the unique needs, features and preferences of target audiences. It will also ensure that the campaigns are participatory.

Additionally, this study recommends regular evaluation of communication campaigns for mental health held in Nairobi County and the entire country. This will help the government, psychiatrists, nurses and mental health communicators to know the objectives that have been achieved and the ones that have not in order to design effective mental health communication campaigns.

Further, this study recommends that the government increases funding for mental health so that mental health institutions can be made more decent and have essential equipment such as enough wards, beds and mattresses. More funds will also enable the Ministry of Health and the psychiatric hospitals such as Mathari National Teaching and Referral Hospital to be able to conduct regular communication campaigns for mental health and also evaluate them.

Finally, the study recommends that the government looks for ways of increasing knowledge of mental health among medical personnel and training more psychiatrists in order to solve the problem of shortage. With increased knowledge of mental health among medical personnel, stigma will be effectively addressed. More psychiatrists will not only make mental health services available to many who need them but also help increase knowledge levels of mental health among the population.

#### **5.4 Suggestions for further research**

To begin with, since data collected from the psychiatrists and psychiatric nurses shows that they visit schools and community centres around Mathari National Teaching and Referral Hospital during the Nurses' Week in May, during community outreach programmes and during World Mental Health Day, this study recommends that research be conducted on how effective these communication campaigns are in enhancing mental health behaviour change among secondary school students around the hospital. The study can also use a different methodology from the one used in this study.

Secondly, the study also suggests that research be conducted to assess the effectiveness of communication campaigns for mental health conducted in other parts of the country in promoting mental health behaviour change. The research can also use a different methodology.

Finally, the study recommends that research be conducted to establish the process of planning, designing and implementing mental health communication campaigns in Kenya. This will help to find out whether these campaigns follow recommended processes or not and help explain the reasons for their outcomes.

## REFERENCES

- Alzheimer's Disease International (2012). *World Alzheimer Report 2012: Overcoming the stigma of dementia*. London: Alzheimer's Disease International.
- Albrecht, T. L. (1996). Advances in segmentation modeling for health communication and social marketing campaigns. *Journal of Health Communication*. 1(1), 65–80.
- Airhinenbuwa, C. O., & Obregon, R. (2000). A critical assessment of theories/models used in health communication for HIV/AIDS. *Journal of Health Communication*, 5, 5-15.
- Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behaviour*. New Jersey: Prentice-Hall.
- Ajzen, I. (1991). The theory of planned behaviour. *Organisational Behaviour and Human Decision Processes*. 50, 179-211, Retrieved from [www.unix.oit.umass.edu/~aizen/index.html](http://www.unix.oit.umass.edu/~aizen/index.html).
- Andreasen, A. (1997). Investing in social marketing. *Journal of Health Communication*. 2(4), 315–316.
- Ashton, C. M., Haidet, P., Paterniti, D. A., Collins, T. C., Gordon, H.S., O'Malley, K., Petersen, L. A., ... & Street R. L., (2003). Racial and ethnic disparities in the use of health services. *Journal of General Internal Medicine*. 18, 146–152.
- Atkin, C. K. (2001). Theory and principles of media health campaigns. In R. E. Rice & C. K. Atkin (Eds.), *Public communication campaigns* (2<sup>nd</sup> ed., pp.49-68). Thousand Oaks, CA: Sage.
- Atwoli, L. (2012, June 17). IDPs still suffering poor mental health. *Sunday Nation*, 31.
- Atwoli, L. (2011, August 21). Time to finally address stigma in mental health. *Sunday Nation*, 35.
- Babbie, E. (2001). *The Practice of Social Research* (9<sup>th</sup> ed.). Belmont, CA: Wadsworth.
- Baker, T. L. (1994). *Doing social research* (2<sup>nd</sup> ed.). New York: McGraw-Hill Inc.

- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman.
- Baran, S. J., & Davis, D. K. (2009). *Mass communication theory: foundations, ferment and future* (5<sup>th</sup> ed.). Boston: Wadsworth Cengage Learning.
- Barker, C., Pistrang, N., Shapiro, D.A., Davies, S., & Shaw, I. (1993). 'You in Mind' : A preventive mental health television series. *British Journal of Clinical Psychology*, 32, 281-293.
- Barry, M. M. (2007). Generic principles of effective mental health promotion. *International Journal of Mental Health Promotion*, 9(2), 4-16.
- Barry, M., & Jenkins, R. (2007). *Implementing mental health promotion*. Oxford: Elsevier.
- Barry, M. M., & McQueen, D. (2005). The nature of evidence and its use in mental health promotion. In: H. Herrman, S. Saxena, & R. Moodie, (Eds.). *Promoting Mental Health: Concepts, emerging evidence, practice*. A WHO Report in collaboration the Victorian Health Promotion Foundation and the University of Melbourne. Geneva: World Health Organization. Retrieved from [www.who.int/mental\\_health/evidence/MH\\_Promotion\\_Book](http://www.who.int/mental_health/evidence/MH_Promotion_Book). Pdf.
- Baxter, L. A., & Babbie, E. (2003). *The basics of communication research*. Boston, MA: Wadsworth, Cengage Learning.
- Beaudoin, C. E. (2009). Evaluating a media campaign that targeted PTSD after Hurricane Katrina. *Health Communication*, 24 (6), 515-523.
- Becker, M. H. (1974). The health belief model and personal health behavior. *Health Education Monographs* 2 (4), 324-473.
- Belle, D., & Doucet, J. (2003). Poverty, inequality and discrimination as sources of depression among U. S. women. *Psychology of Women Quarterly*, 27, 101-113.
- Berg, L. B., & Lune, H. (2012). *Qualitative Research Methods for the Social Sciences* (8<sup>th</sup> ed.). New Jersey: Pearson Education, Inc.
- Bhugra, D. (2004). Migration and mental health. *Acta psychiatrica scandinavica*, 109, 243-258. Retrieved from [CrossRef][Web of Science ®][CSA].
- Bocha, G. (2012, March 9). "Witchcraft hinders war on epilepsy," says medic. *Daily Nation*, 34.

- Boruch, R. (1996). *Randomized experiments for planning and change*. Thousand Oaks, CA: Sage.
- Bryman, A. L. (2012). *Social Research Methods* (4<sup>th</sup> ed.). Oxford: Oxford University Press.
- Brown, S. J., Lieberman, D. A., Gemeny, B. A., Fan, Y. C., Wilson, D. M., & Pasta, D. J. (1997). Educational video game for juvenile diabetes: Results of a controlled trial. *Medical Informatics*, 22 (1), 77-89.
- Brug, J., Conner, M., Harre, N., Kremers, S., McKeller, S., & Whitelaw, S. (2005). The transtheoretical model of change: a critique. *Health Education Research*, 20 (2) 244-258.
- Brundtland, (2001) World Health Organization. The World Health Report: mental disorders affect one in four people-message from the Director General. Geneva: WHO. Retrieved from <http://www.who.int/whr/2001/media centre/press release/en/index.html>
- Burak, L. J., & Meyer, M. (1997). Using the health belief model to examine and predict college women's cervical cancer screening beliefs and behavior. *Health Care for Women International*, 18 (3), 251-262.
- Burns, J., Ellis, L., Mackenzie, A., & Nicholas, J. (2009). Reach Out! Innovation in Mental Health Service Delivery for Young People. *Counselling, Psychotherapy, and Health*, 5 (1), 171-190.
- Chang, B. L., Bakken, S., Brown, S. S., Houston, T. K., Kreps, G. L., Kukafka, R., Safran, C., & Stavri. P. Z. (2004). Bridging the digital divide: Reaching vulnerable populations. *Journal of the American Medical Informatics Association*, 11(6), 448-457.
- Chew, L. D., Bradley, K. A., & Boyko. E. J. (2004). Brief questions to identify patients with inadequate health literacy. *Family Medicine*, 36, 588-594.
- Commonwealth Department of Health & Aged Care (2000). *Promotion, Prevention and Early Intervention for Mental Health- A Monograph*. Canberra: Mental Health & Special Programs Branch, Commonwealth Department of Health & Aged Care.

- Corcoran, N. (Ed.) (2007). *Communicating health: strategies for health promotion*. London: Sage.
- Corrigan, P., & Lundin, R. (2001). *Don't call me nuts!* Tinley Park, IL: Recovery Press, University of Chicago.
- Craig, R.T., & Muller, H. J. (2007). *Theorizing communication: Readings across traditions*. Thousand Oaks, CA: Sage.
- Danso, R. (2002). From 'there' to 'here': an investigation of the initial settlement experiences of Ethiopian and Somali refugees in Toronto. *GeoJournal*, 56, 3-14.
- Davis, H., & Tsiantis, J. (2005). Promoting children's mental health: the European Early Promotion Project (EEPP). *International Journal of Mental Health Promotion*, 7 (1).
- Deshpande, S., Basil, M. D., & Basil, D. Z. (2009). Factors influencing healthy eating habits among college students: an application of the health belief model. *Health Marketing Quarterly*, 26 (2), 145-164.
- Donohew, L., Lorch, E. P., & Palmgreen, P. (1998). Applications of a theoretic model of information exposure to health interventions. *Human Communication Research*, 24, 454-468.
- Donovan, R. J., James, R., Jalleh, G., & Sidebottom, C. (2006). Implementing Mental Health Promotion: The Act-Belong-Commit Mentally Healthy WA Campaign in Western Australia. *International Journal of Mental Health Promotion*, 8 (1), 33-42.
- Durlark, J. A., & Wells, A. M. (1997). Primary prevention mental health programs for children and adolescents: a meta-analytic review. *American Journal of Community Psychology*, 25 (2), 115-52.
- Easterling, D. V., & Leventhal, H. (1989). Contribution of concrete cognition to emotion: Neutral symptoms as elicitors of worry about cancer. *Journal of Applied Psychology*, 74, 787-796.
- European Commission (2004) *Actions against Depression: Improving Mental Health and Well-Being by Combating the Adverse Health, Social and Economic*

*Consequences of Depression*. Luxembourg: Health & Consumer Protection Directorate-General.

Frankfort-Nachmias, C., & Nachmias, D. (1996). *Research methods in the social sciences* (5<sup>th</sup> ed.). London: St Martin's Press, Inc.

Freeman, H. P. (2004). Poverty, culture, and social injustice: Determinants of cancer disparities. *CA: A Cancer Journal for Clinicians*, 54, 72–77.

Friedman, D. B., & Hoffman-Goetz, L. (2006). Assessment of cultural sensitivity of cancer information in ethnic print media. *Journal of Health Communication*, 11(4), 425–447.

Greenberg, M.T. (2010). School-based prevention: current status and future challenges. *Effective Education*, 2, 27-52.

Greenberg, M.T., Domitrovich, C., & Burmbarger, B. (2001). The prevention of mental disorders in school-aged children: current state of the field. *Prevention and Treatment*, 4 (1). Retrieved from <http://Journals.apa.org/prevention/volume4/pre0040001a.html>

Griffin, E. (2009). *A first look at communication theory* (7<sup>th</sup> ed.). New York: McGraw-Hill.

Griffin, G. (2008). *Addressing the mental health consequences of HIV/AIDS*. Report from the international experts forum, Cape Town. Retrieved from <http://www.wfmh.org>

Harden, A., Rees, R., Shepherd, J., Brunton, G., Oliver, S., & Oakley, A. (2001). *Young people and mental health: A systematic review on barriers and facilitators*. England: EPPI-Centre. Retrieved from <http://eppi.loe.ac.uk>

Hart, S. R., Kastelic, E. A., Wilcox, H. C., Beaudry, M. B., Musci, R. J., Heley, K. M., Ruble, A. E., & Swartz, K. L. (2014). Achieving depression literacy: the adolescent depression knowledge questionnaire. *School Mental Health*, 6, 213-223. doi: 10.1007/s12310-014-9120-1.

Hersey, J.C., Klibanoff, L.S., Lam, D.J., & Taylor, R.L. (1984). Promoting social support: the impact of California's 'Friends can be good medicine' campaign. *Health Education Quarterly*, 11 (3), 293-311.

- Hess, S. G., Cox, T. S., Gonzales, L. C., Kastelic, E. A., Mink, S. P., Rose, L. E., et al., (2004). A survey of adolescents' knowledge about depression. *Archives of Psychiatric Nursing*, 18, 228-234. doi: 10.1016/j.apnu.2004.09.005.CrossRef
- Hester, N. R., & Macrina, D. M. (1985). The health belief model and the contraceptive behavior of college women: implications for health education. *Journal of American College Health*, 33, 6, 245-252.
- Hickling, F.W. (1992). Radio psychiatry and community mental health. *Hospital and Community Psychiatry*, 43, 739-741.
- Houston, H. R., Harada, N., & Makinodan, T. (2002). Development of a culturally sensitive educational intervention program to reduce the high incidence of tuberculosis among foreign-born Vietnamese. *Ethnicity & Health*. 7(4), 255-265.
- Jackson, C., Lawton, R., Knapp, P., Raynor, D. K., Connor, M., Lowe, C., & PCloss, S. J. (2005). Beyond intention: do specific plans increase health behaviours in patients in primary care? A study of fruit and vegetable consumption. *Social Science and Medicine*, 60, 2383-2381.
- Jané-Llopis, E., Barry, M., Hosman, C., & Patel, V. (2005). Mental health promotion works: a review. *Promotion & Education Supplement*, 2, 9-25.
- Jané-Llopis, E., & Braddick, F, (Eds). (2008). *Mental Health in youth and education*. Consensus paper. Luxembourg: European Communities.
- Janz, N. J., & Becker, M. H. (1984). The health belief model: a decade later. *Health Education Quarterly*, 11 (1), 1-47.
- Jones, R., Biddlecom, A., Hebert, L., & Milne, R. (2011). Teens reflect on their sources of contraceptive information. *Journal of Adolescent Research*, 26 (4), 423-446.
- Jones, S., & Donovan, R. J. (2004). Does theory inform practice in health promotion in Australia? *Health Education Research*, 19 (1), 1-14.
- Kakuma, R., Kleintjes, S., Lund, C., Drew, N., Green, A., & Flisher, A. J. (2010). Mental health stigma: What is being done to raise awareness and reduce stigma in South Africa? *African Journal of Psychiatry*, 13, 116-124.

- Kenya National Commission on Human Rights (2011). *Silenced minds: the systemic neglect of the mental health system in Kenya*. Nairobi: Kenya National Commission on Human Rights.
- Kenya Psychiatrists Association. Retrieved from [www.kenyapsychiatristsassociation.org](http://www.kenyapsychiatristsassociation.org)
- Kerlinger, F. N. (2000). *Foundations of behavioural research* (4<sup>th</sup> ed.). New York: Holt, Rinehart & Winston.
- Kessler, R.D., Berglund, P., & Demler, O. (2005). Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. *Archives of General Psychiatry*, 62, 593-602.
- Khasakhala, L. I., Ndetei, D. M., Mutiso, V., Mwayo, A. W., & Mathai, M. (2012). The prevalence of depressive symptoms among adolescents in Nairobi public secondary schools: association with perceived maladaptive parental behavior. *African Journal of Psychiatry*, 15, 106-113.
- Kidd, P., Reed, D., Weaver, L., Westnear, S., & Rayens, M. K. (2003). The transtheoretical model of change in adolescents: implications for injury prevention. *Journal of Safety Research*, 34 (3), 281-288.
- Kiima D., & Jenkins, R. (2010). Mental health policy in Kenya-an integrated approach to scaling up equitable care for poor populations. *International Journal of Mental Health Systems*, 4, 1-15. Retrieved from <http://www.ijmhs.com/content/4/1/19>
- Kobetz, E., Vatalaro, K., Moore, A., & Earp, J. A. (2005). Taking the transtheoretical model into the field: a curriculum for lay health advisors. *Health Promotion Practice*, 6 (3), 329-337.
- Kotler, P., & N. Lee. (2005). Best of breed: When it comes to gaining a market edge while supporting a social cause, “Corporate Social Marketing” Leads the Pack. *Social Marketing Quarterly*, 11(3), 91–103.
- Kreps, G. L. (1996). Communicating to promote justice in the modern health care system. *Journal of Health Communication*, 1, 99–109.
- Kreps, G. L. (2005a). Communication and racial inequities in health care. *The American Behavioral Scientist*, 49, 1–15.

- Kreps, G. L. (2005b). Disseminating relevant information to underserved audiences: Implications from the Digital Divide Pilot Projects. *Journal of the Medical Library Association*, 93(4), 65–70.
- Kreps, G. L. (2006). One size does not fit all: Adapting communication to the needs and literacy levels of individuals. *Annals of Family Medicine*. Retrieved from <http://www.annfammed.org/cgi/eletters/4/3/205>.
- Kreps, G. L. (2007). Public access to relevant cancer information: Results from the Health Information National Trends Survey and implications for breast cancer education in Malaysia. In *Proceedings of the Malaysian National Breast Cancer Education Summit*, ed. Zainal Abidin Hashim Kuala Lumpur: Universiti Putra Malaysia.
- Kreps, G. L. (2008). Strategic Use of Communication to Market Cancer Prevention and Control to Vulnerable Populations. *Health Marketing Quarterly*, 25, 1,204 — 216 DOI: 10.1080/07359680802126327
- Kreps, G. L., & Kunimoto, E. (1994). *Effective communication in multicultural health care settings*. Newbury Park, CA: Sage Publications.
- Kreps, G. L., & Massimilla, D. C. (2002). Cancer communications research and health outcomes: Review and challenge. *Communication Studies*, 53, 318–336.
- Kreuter, M. W., & McClure, S. M. (2004). The role of culture in health communication. *Annual Review of Public Health*, 25, 439–455.
- Kweyu, D. (2012, March 14). People with mental disorders need the support and respect of community. *Daily Nation*, 13.
- Lang, P. J. (1984). Cognition in emotion: Concept and action. In C. F. Izard, J. Kagan, & R. B. Zajone (Eds.), *Emotions, cognition, and behaviour* (pp. 192-226). Cambridge: Cambridge University Press.
- Lavin, D., & Groarke, A. (2005). Dental-floss behaviour: a test of the predictive utility of the theory of planned behaviour and the effects of making implementation interventions. *Psychology, Health and Medicine*, 10 (3), 243-252.

- Lee, H., Ebesu, H. A. S., O’Riordan, K. C., & Kim, M. (2006). Incorporating culture into the theory of planned behavior: Predicting smoking cessation intentions among college students. *Asian Journal of Communication*. 16(3), 315–332.
- Leventhal, H. (1970). Findings and theory in the study of fear communications. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 5, pp. 119-186). New York: Academic Press.
- Liang, W., Yuan, E., Mandelblatt, J. S., & Pasick, R. J. (2004). How do older Chinese women view health and cancer screening? Results from focus groups and implications for interventions. *Ethnicity & Health*. 9(3), 283–304.
- Lindlof, T. R., & Taylor B.C. (2011). *Qualitative Communication Research Methods* (3<sup>rd</sup> ed.). Thousand Oaks, CA: Sage Publications, Inc.
- Logan, H. L., Guo, Y., Emanuel, A. S., Shepperd, J. A., Dodd, V. J., John G. Marks, J. G., Muller, K. E., & Riley III, J. L. (2015). Determinants of first-time cancer examinations in a rural community: a mechanism for behaviour change. *American Journal of Public Health*. 105 (7), 1424- 1431.
- Maibach, E. W. (2002). Explicating social marketing: What is it, and what isn’t it?. *Social Marketing Quarterly*. 8(4), 7–13.
- Marshall, S. J., & Biddle, S. J. H. (2001). The transtheoretical model of behavior change: a meta-analysis of applications to physical activity and exercise. *Annals of Behavioural Medicine*, 23 (4), 229-246.
- Masatu, M. C., Kvale, G., & Klepp, K. (2003). Frequency and perceived credibility of reported sources of reproductive health information among primary school adolescents in Arusha, Tanzania. *Scandinavian Journal of Public Health*, 31, 216-223.
- Mberia, H. K. (2009). *Persuasive communication factors that influence university students in their response to HIV and AIDS prevention campaign messages*. Unpublished PhD thesis. Juja: Jomo Kenyatta University of Agriculture and Technology.
- McGorry, P. D., Purcell, R., Hirkie, I. B., & Jorm, A. F. (2007). Investing in youth mental health is a best buy. *Medical Journal of Australia*, 187 (7), S5-S7.
- Mead, G. H. (1934). *Mind, self and society*. Chicago: University of Chicago Press.

- Mental Health Foundation (2010). Retrieved from <http://www.mentalhealth.org.uk/information/wellbeing-podcasts>.
- Mentality. (2003). *Making it effective. A guide to evidence based mental health promotion. Radical mentalities* [briefing paper 1]. London: Mentality. Retrieved from <http://www.mentality.org.uk>
- Mickler, S. E. (1993). Perceptions of vulnerability: Impact on AIDS-preventive behavior among college adolescents. *AIDS Education and Prevention*, 5, 43-53.
- Ministry of Public Health and Sanitation & Ministry of Medical Services (2011). National Cancer Control Strategy 2011-2016. Nairobi. Retrieved from [www.ipcrc.net/pdfs/kenya](http://www.ipcrc.net/pdfs/kenya).
- Mirowsky, J., & Ross, C. E. (1989). *Social causes of psychological distress*. New York: Aldine.
- Mohr, L. B. (1992). *Impact analysis for program evaluation*. Newbury Park, CA: Sage.
- Morrow, L., Verins, I., & Willis, E. (Eds) (2002). *Mental Health and Work: Issues and Perspectives*. Adelaide: Aussinet: The Australian Network for Promotion, Prevention and Early Intervention for Mental Health.
- Mugenda, O.M., & Mugenda, A. G. (2003). *Research methods: qualitative and quantitative approaches*. Nairobi: Acts Press.
- Mugenda, O. M., & Mugenda, A. G. (1999). *Research methods: qualitative and quantitative approaches*. Nairobi: Acts Press.
- Munoz, R. F., Glish, M., Soo- Hoo, T., & Robertson, J. (1982). The San Francisco mood survey project: Preliminary work toward the prevention of depression. *American Journal of Community Psychology*, 10 (3), 317-329.
- Mupepi, S. C., Sampelle, C. M., & Johnson, T. R. B. (2011). Knowledge, attitudes and demographic factors influencing cervical cancer screening behaviour of Zimbabwean women. *Journal of Women's Health*. 20 (6), 943-952.
- Murray, C J. L., & Lopez, A. D. (1996). *The global burden of disease: a comprehensive assessment of mortality and disability from diseases, injury and*

- risk factors in 1990 projected to 2020*. Geneva: World Bank, World Health Organization and Harvard School of Public Health.
- Muturi, N. W. (2005). Communication for HIV=AIDS prevention in Kenya: Social-cultural considerations. *Journal of Health Communication*, 10(1), 77-98.
- Naidoo, J., & Wills, J. (2000). *Health promotion: foundations for practice* (2<sup>nd</sup> ed.). Baillere Tindall and RCN, London.
- Nairobi County Director of Education Office (2013). The 2013 secondary school enrollment in Nairobi.
- Ndati, N. (2013). *Interpersonal communication and HIV/AIDS: influencing behavioural responses to HIV amongst students in Nairobi*. Nairobi: Nairobi Academic Press.
- Ndeti, D. M. (2010). *Your A-Z on mental health*. Nairobi: Acrodile Publishing Limited.
- Ndeti, D. M., Khasakhala. L.I., Kuria, M.W., Mutiso, V.N., Ongecha-Owuor, F. A., & Kokonya, D. A. (2009).The prevalence of mental disorders in adults in different level general medical facilities in Kenya: a cross-sectional study. *Annals of General Psychiatry*, 8:1. Retrieved from <http://www.annals-general-psychiatry.com/content/8/1/1>
- National Institute for Health and Clinical Excellence (2009). *Promoting young people's social and emotional wellbeing in secondary education*. NICE. Retrieved from <http://www.nice.org.uk/nicemedia/live/11991/45484/45484.pdf>
- Noar, S.M. (2006). A 10-year retrospective of research in health mass media campaigns: Where do we go from here? *Journal of Health Communication*, 11, 21-42.
- Nolen-Hoeksema, S., & Keita, G. P. (2003). Women and depression: Introduction. *Psychology of Women Quarterly*, 27, 89-90.
- Norris, F. J., Friedman, M. J., Watson, P. J., Byrne, C. M., Diaz, E., & Kaniasty, K. (2002). 60, 000 disaster victims speak: Part 1. An empirical review of the empirical literature, 1981-2001. *Psychiatry*, 65, 207-239.

- Oanda, I., & Steno Diabetes Center (2012). *Health-related theater in Kenya with special focus on non-communicable diseases and their risk factors: A review of existing networks and capacities*. Gentofte: Steno Health Promotion Center.
- Olsson, D. P., & Kennedy, M. G. (2010). Mental health literacy among young people in a small US town: recognition of disorders and hypothetical helping responses. *Early Intervention in Psychiatry*, 4, 291-298. doi: 10.1111/j.1751-7893.2010.00196.x. CrossRef.
- Othieno, C., Kitazi, N., Mburu, J., Obondo, A., & Mathai, M. (2008). Community participation in the management of mental disorders in Kariobangi, Kenya. EQUINET PRA paper. Harare: EQUINET.
- Palmer, D. (2011). A content analysis of the oral narratives exploring factors which impact on, and contribute to, the mental ill health of the Ethiopian diaspora in London, UK. *African Identities*, 9 (1), 49-66. [Taylor & Francis online], Retrieved from MENTAL HEALTH/14725843.2011.530445.htm.
- Palmgreen, P., Noar, S.M., & Zimmerman, R. S. (2008). Mass media campaigns as a tool for HIV prevention. In T. Edgar, S.M. Noar & V. Freimuth (Eds.), *Communication perspectives on HIV/AIDS for the 21<sup>st</sup> century* (pp.221-252). New York: Lawrence Erlbaum.
- Parker, E. A., Baldwin, G. T., Israel, B., & Salinas, M. (2004). Application of health promotion theories and models for environmental health. *Health Education and Behaviour*, 31 (4), 491-509.
- Parrott, R. L. (1995). Motivation to attend to health messages: Presentation of content and linguistic considerations. In E. W. Maibach & R. L. Parrott (Eds.), *Designing health messages: Approaches from communication theory and public health practice* (pp. 2-23). Thousand Oaks, CA: Sage.
- Patel, V. (2005). Poverty, gender and mental health promotion in a global society. In E. Jane-Llopis, M. M. Barry, C. Hosman & V. Patel (Eds.), *The evidence of mental health promotion effectiveness: strategies for action*. *Promotion & Education* 2, 26-29.
- Patel, V., & Jane-Llopis, E. (2005). Poverty, social exclusion and disadvantaged groups. In C. Hosman, E. Jane-Llopis & S. Saxena, (Eds.), *Prevention of*

*mental disorders: effective interventions and policy options*. Oxford: Oxford University Press.

- Patel, V., & Kleinman, A. (2003). Poverty and common mental disorders in developing countries. *Bulletin of the World Health Organization*, 81, 609.
- Patel, V., Araya, R., de Lima, M., Ludermir, A., & Todd, C. (1999). Women, poverty and common mental disorders in four restructuring societies. *Social Science & Medicine*, 11, 1461-1471.
- Patton, G.C., Olsson, C.A., & Toumborou, J. (2002). Adolescent mental health promotion: The evidence. In L. Rowling, G. Martin & L. Walker (Eds.), *Mental health promotion and young people: Concepts and practice*. Sidney: McGraw-Hill.
- Peterson, C., & Stunkard, A. J. (1989). Personal control and health promotion. *Social Science and Medicine*, 28, 819-828.
- Piotrow, P. T., & Kincaid, D. L. (2001). Strategic communication for international health programs. In R. Rice & C. Atkin (Eds.), *Public communication campaigns* (3<sup>rd</sup> ed., pp. 249-266). Newbury Park, CA: Sage.
- Polit, D. F., Beck, C. T., & Hungler, B. P. (2001). *Essentials of nursing research: methods, appraisal and utilization* (5<sup>th</sup> ed.). Philadelphia: Lippincott Williams and Wilkins.
- Population Communication Services/ Centre for Communication Programmes (JHU/CCP) (2003). *A field guide to designing a health communication strategy*, Johns Hopkins University. Retrieved from [www.eldis.org/Static/Doc18111.htm](http://www.eldis.org/Static/Doc18111.htm).
- Prochaska, J. O., & Diclemente, C. C. (1983). Stages and processes of self-change in smoking: toward an integrative model of change. *Journal of Consulting and Clinical Psychology* 51 (3), 390-395.
- Puska, P. (2010). From Framingham to North Karelia: From descriptive epidemiology to public health action. *Progress in Cardiovascular Disease*, 53 (1), 15-20.

- Rahman, A., Mubbashar, M.H., Gater, R., & Goldberg, D. (1998). Randomised trial of impact of School Mental Health Programme in rural Rawalpindi, Pakistan. *The Lancet*, 352, 1022-1025.
- Randolf, W., & Viswanath, K. (2004). Lessons learned from public health mass media campaigns: marketing health in a crowded media world. *Annual Review of Public Health*, 25 (1), 419-37.
- Rao, U., Daley, S. E., & Hammen, C. (2000). Relationship between depression and substance use disorders in adolescent women during the transition to adulthood. *Journal of the American Academy of Child and Adolescent Psychiatry*, 39, 215-222.
- Rickwood, D. J. (2010). Promoting youth mental health through computer-mediated communication. *International Journal of Mental Health Promotion*, 12 (3), 32-44.
- Rickwood, D. J., Deane, F. P., & Wilson, C. (2007). When and how do young people seek professional help for mental health problems? *Medical Journal of Australia*, 187 (7), S 35-S39.
- Robson, C. (2011). *Real World Research* (3<sup>rd</sup> ed.). West Sussex: John Wiley & Sons Ltd.
- Rogers, E.M. (1996). Up-to-date report. *Journal of Health Communication*, 1 (1), 15-23.
- Rogers, R. W. (1975). A protection motivation theory of fear appeals and attitude change. *Journal of Psychology*, 91, 93- 114.
- Rogers, R. W. (1983). Cognitive and physiological processes in fear appeals and attitude change: A revised theory of protection motivation. In J. Cacioppo, & R. Petty (Eds.), *Social psychophysiology* (pp. 153-176). New York: Guilford.
- Romer, D., & Bock, M. (2008). Reducing the stigma of mental illness among adolescents and young adults: the effects of treatment information. *Journal of Health Communication: International Perspectives*, 13 (8), 742-758.
- Rosen, A., Walter, G., Casey, D., & Hocking, B. (2000). Combating psychiatric stigma: An overview of contemporary initiatives. *Australasian Psychiatry*, 8, 19-26.

- Rosenstock, I. M. (1966). Why people use health services. *Milbank Memorial Fund Quarterly*, XLIV 3 (2), 94-127.
- Rossi, P. H., Freeman, H. E., & Lipsey, M. (1999). *Evaluation: A systematic approach*. Thousand Oaks, CA: Sage.
- Rubin, R. B., Rubin, A. M., & Piele, L. J. (2005). *Communication Research: Strategies and Sources* (6<sup>th</sup> ed.). Belmont, CA: Wadsworth.
- Ruud, J. S., Betts, N., Kritch, K., Nitzke, S., Lohse, B., & Boeckner, L. (2005). Acceptability of stage-tailored newsletters about fruit and vegetables by young adults. *Journal of the American Dietetic Association*, 105 (11), 1774-1778.
- Rutter, D., & Quine, L. (Eds.). (2002). *Changing health behavior*. Buckingham: Open University Press.
- Rutter, M., Maughan, B., Mortimore, P., & Ousten, J. (1979). *Fifteen thousand hours: secondary schools and their effects on children*. London: Open Books.
- Santhya, K. G., & Dasvarma, G. L. (2002). Spousal communication on reproductive illness among rural women in southern India. *Culture, Health & Sexuality*, 4 (2), 223-236.
- Sartorius, N. (1997). Fighting schizophrenia and its stigma. A new World Psychiatric Association educational programme. *British Journal of Psychiatry*, 170, 297.
- Sartorius, N., & Schulze, H. (2005). *Reducing the stigma of mental illness: A report from the Global programme of the World Psychiatric Association*. Cambridge, UK: Cambridge University Press.
- Saxena, S., & Garrison, P. J. (2004). *Mental Health Promotion: Case Studies from Countries*. World Health Organisation and World Federation for Mental Health. Geneva: WHO.
- Scanlon, K., & Raphael, B. (2002). Promotion, Prevention and Early Intervention in Mental Health: The Australian Experience. *International Journal of Mental Health Promotion*, 4 (3), 4-12.
- Schatzman, L., & Strauss, A. (1973). *Field Research: Strategies for a Natural Sociology*. Englewood Cliffs, NJ: Prentice Hall.
- Schiavo, R. (2007). *Health communication: From theory to practice*. San Francisco: Jossey-Bass.

- Sclar, E. D., Garau, P., & Carolini G. (2005). The 21<sup>st</sup> century health challenge of slums and cities. *Lancet*, 365, 901-903.
- Seroczynski, A. D., Jacques, F. M., & Cole, D. A. (2003). Depression and suicide during adolescence. In G. R. Adams, & M. D. Berzonsky, (Eds.), *Blackwell handbook of Adolescence* (pp. 550-572). Malden, MA: Blackwell.
- Shadish, W. R., Cook, T. D., & Leviton, L. C. (1991). *Foundations of program evaluation: Theories of practice*. Newbury Park, CA: Sage.
- Slade, T., Johnston, A., Teesson, M. et al. (2009). *The Mental Health of Australians 2: Report on the 2007 national survey of mental health and wellbeing*. Canberra: Department of Health and Ageing.
- Snyder, L. B. (2001). Development communication campaigns. In: W. B. Gutykunst, B. Mody, (Eds.), *Handbook of International and Intercultural communication* (2<sup>nd</sup> ed.). Thousand Oaks, CA: Sage.
- Snyder, L. B. (2007). Health communication campaigns and their impact on behavior. *Journal of Nutrition Education and Behaviour*, 39, 32-40.
- Snyder, L. B., & Rouse, R. A. (1992). Targeting the audience for AIDS messages by actual and perceived risk. *AIDS Education and Prevention*, 4, 143-159.
- Sogaard, A. J., & Fonnebo, V. (1995). The Norwegian Mental Health Campaign in 1992, Part 2: Changes in knowledge and attitudes. *Health Education Research*, 10 (3), 267-278.
- Stretcher, V., & Rosenstock, I. M. (1997). The health belief model. In K. Glanz, F. M. Lewis, & B. K. Rimer, (Eds.), *Health behavior and health education: theory, research and practice* (2<sup>nd</sup> ed.). San Francisco: Jossey- Bass.
- Stewart, D., Sun, J., Patterson, C., Lamerle, K., & Hardie, M. (2004). Promoting and building resilience in primary school communities: evidence from a comprehensive 'health promoting school' approach. *International Journal of Mental Health Promotion*, 6 (3), 26-33.
- Taggart, L. (2011). Mental health problems in people with learning disabilities. In H. L. Atherton, & D.J. Crickmore, (Eds.). *Learning disabilities: toward inclusion* (6<sup>th</sup> ed.). (pp. 299-317). Oxford: Elsevier Ltd.

- Taylor, R. L., Lam, D.J., Roppel, C.E., & Barter, J.T. (1984). Friends can be good medicine: an excursion into mental health promotion. *International Journal of Mental Health Promotion*, 20 (4), 294-303.
- Thomas, S. B., M. J. Fine., & Ibrahim, S. A. (2004). Health disparities: The importance of culture and health communication. *The American Journal of Public Health*, 94, 2050.
- Tones, K., & Green, J. (2004). *Health promotion: planning and strategy*. London: Sage.
- Tones, K., & Tilford, S. (1994). *Health education: effectiveness, efficiency and equity* (2<sup>nd</sup> ed.). Chapman & Hall: London.
- Trifiletti, L. B., Gielen, A. C., Sleet, D. A., & Hopkins, K. (2005). Behavioural and social sciences theories and models: are they used in unintentional injury prevention research? *Health Education Research*, 20 (3), 298-307.
- UN-HABITAT. *Integrated water sanitation and waste management in Kibera*. Retrieved from [www.unhabitat.org](http://www.unhabitat.org)
- US Office of Disease Prevention and Health Promotion (2000). *Healthy People 2010*, Retrieved from [www.healthypeople.gov/document/](http://www.healthypeople.gov/document/)
- Valente, T. W. (2001). Evaluating communication campaigns. In R. E. Rice, & C. K. Atkin, (Eds.), *Public communication campaigns* (pp 105-124). Thousand Oaks, CA: Sage.
- Waisbord, S., Shimp, L., Ogden, E. W., & Morry, C. (2010) Communication for Polio Eradication: Improving the Quality of Communication Programming Through Real-Time Monitoring and Evaluation. *Journal of Health Communication*, 15: 1, 9-24. Retrieved from <http://dx.doi.org/10.1080/10810731003695375>
- Wallack, L., & Dorfman, L. (2001). Putting policy into health communication: the role of media advocacy. In: R. E. Rice, & C. K. Atkin, (Eds.), *Public communication campaigns* 389-401.
- Walker, L., Moodie, R., & Herman, H. (2004). Promoting mental health and wellbeing. In: R. Moodie, & A. Hulme, (Eds.). *Hands-on Health Promotion*. Melbourne: IP Communications.

- Weare, K. (2010). Mental health and social and emotional learning: evidence, principles, tensions, balances. *Advances in School Mental Health Promotion*, 3, 5-17.
- Weare, K. (2000). *Promoting mental, emotional and social health: A whole school approach*. London: Routledge.
- Wells, J., Barlow, J., & Stewart-Brown, S. (2001). *A systematic review of universal approaches to mental health promotion in schools*. HSRU: University of Oxford.
- Williams, S.M., Saxena, S., & McQueen, D. V. (2005). The momentum for mental health promotion. In: E. Jane-Llopis, M. Barry, C. Hosman, & V. Patel, (Eds.), *The evidence of mental health promotion effectiveness: strategies for action. Promotion & Education* 2, 6-9.
- Wimmer, R. D., & Dominick, J. R. (2011). *Mass media research: an introduction* (9<sup>th</sup> ed.). Wadsworth: Cengage Learning.
- Witte, K. (1992). The role of threat and efficacy in AIDS prevention. *International Quarterly of Community Health Education*, 12, 225-249.
- Wood, J. B. (1989). Communicating with older adults in health care settings: Cultural and ethnic considerations. *Educational Gerontology*. 15 (4), 351–362.
- World Health Organization (1986). *Ottawa Charter for Health Promotion*. Ottawa: World Health Organization and Canadian Public Health Association.
- World Health Organization (1992). *ICD-10: international statistical classification of diseases and related health problems*, 10<sup>th</sup> revision. Geneva: World Health Organization.
- World Health Organization (1998). *Primary Prevention of Mental Health, Neurological and Psychological Disorders*. Geneva: World Health Organization.
- World Health Organization (2001). *The world health report 2001. Mental health: New understanding, new hope*. Geneva: World Health Organization.
- World Health Organization (2002). *Gender and mental health*. Geneva. World Health Organization.

- World Health Organization (2003). *Advocacy for mental health*. Geneva: World Health Organization.
- World Health Organization (2004a). *Prevention of Mental Disorders: Effective interventions and policy options*. A report of the WHO and the Prevention Research Centre, Universities of Nijmegen and Maastricht, Geneva: World Health Organization.
- World Health Organization (2004b). *Promoting Mental Health: Concepts, emerging evidence and practice*. A report of the WHO and the Victorian Health promotion Foundation and University of Melbourne. Geneva: World Health Organization.
- World Health Organization (2004c). *Promoting mental health: concepts, emerging evidence, practice*. Geneva: World Health Organization. Retrieved from [//www.who.int/mental\\_health/evidence/en/promoting\\_mhh.pdf](http://www.who.int/mental_health/evidence/en/promoting_mhh.pdf)
- World Health Organization (2004d). *The global campaign against epilepsy: Out of the shadows*. Brazzaville: World Health Organization.
- World Health Organization (2005). *Child and adolescent mental health: policies and plans*. Geneva: World Health Organization.
- World Health Organization (2007). *Expert opinion on barriers and facilitating factors for the implementation of existing mental health knowledge in mental health services*. Geneva: World Health Organization.
- World Health Organization (2008). *Our cities, our health, our future: toward action on social determinants of health in urban settings*. Kobe City: World Health Organization.
- World Health Organization (2009). *Public health campaigns: getting the message across*. Geneva: WHO. Retrieved from <http://www.who.int/about/history/publications/9789240560277/en/>
- World Health Organization (2010). *Mental health and development: Targeting people with mental health conditions as a vulnerable group*. Retrieved from <http://www.who.int/mental-health/policy/development/en/index.html>

- World Health Organization (2012). *Health education: theoretical concepts, effective strategies and core competencies*. Cairo: WHO Regional Office for the Eastern Mediterranean.
- World Health Organization (2012). *Dementia: a public priority*. Geneva: World Health Organization.
- World Health Organization (2012). *Risks to mental health: An overview of vulnerabilities and risk factors*. Background paper by WHO Secretariat for the development of a comprehensive mental health action plan. Retrieved from [www.who.int/mental\\_health/mhgap/risks\\_to\\_mental\\_health\\_EN\\_27\\_08\\_12](http://www.who.int/mental_health/mhgap/risks_to_mental_health_EN_27_08_12).
- Wunderlich, U., Bronich, T., Wittchen, H. U., & Carter, R. (2001). Gender differences in adolescents and young adults with suicidal behavior. *Acta Psychiatrica Scandinavica*, 104, 332-339.
- Youmans, S. L., & Schillinger, D. (2003). Functional health literacy and medication use: The pharmacist's role. *The Annals of Pharmacotherapy*, 37, 1726–1729.

## APPENDICES

### APPENDIX 1: QUESTIONNAIRE

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The information gathered using this questionnaire will not be used for any other purpose apart from that of this research. It will remain confidential.

#### Part 1

Please tick the most appropriate choice in each of these questions.

1. What is your gender?
  - a) Male
  - b) Female
  
2. How old are you?
  - a) 13 years old
  - b) 14 years old
  - c) 15 years old
  - d) 16 years old
  - e) 17 years old
  - f) 17 and above
  
3. Which of the following is a mental illness? (You can tick more than one)
  - a) Depression
  - b) Dementia
  - c) Post-traumatic stress disorder
  - d) Schizophrenia

4. What do you believe causes mental illnesses? (You can tick more than one option)
- a) Witchcraft
  - b) Curses
  - c) They are hereditary
  - d) Drug abuse
  - e) Infections
  - f) Injuries
  - g) An extremely unpleasant experience
  - h) Other diseases
5. Who or what has made you to hold this belief? (You can tick more than one option)
- a) Family and friends
  - b) Teachers
  - c) Religious people
  - d) Witchdoctors
  - e) Medical personnel
  - f) Communication campaigns
  - g) Books
  - h) The media
6. Do you think that you can also suffer from a mental illness?
- a) Yes

- b) No
7. Which of the following shows the severity of mental illnesses? (You can tick more than one choice)
- a) Mental illnesses can lead to suicide
  - b) Mental illnesses can lead to dropping out of school or quitting employment
  - c) Mental illnesses can lead to complete loss of memory
  - d) Mental illnesses can make one wrongly believe that others are trying to harm them
  - e) Mental illnesses can make one harm others
8. What are the benefits of preventing mental illnesses or seeking treatment when mentally ill? (You can tick more than one option).
- a) Enjoyment of good health
  - b) Remaining productive
  - c) Not being stigmatized against
9. What would be a barrier to seeking information about or treatment for a mental illness? (You can tick more than one option).
- a) Fear that people will call me *mwenda wazimu*
  - b) Lack of money
  - c) Lack of time
  - d) Fear of being isolated

10. Which of the following factors could drive you to seek information on preventing mental illnesses or seeking treatment for a mental illness? (You can tick more than one option)

- a) When a close relative or friend becomes mentally ill
- b) When a close relative or friend seeks information on mental health
- c) When a close relative or friend who was mentally ill goes for medical treatment and recovers
- d) When you see statistics on the number of people who are mentally ill
- e) When you read or get information about your susceptibility to mental illnesses

11. Would you confidently seek information about a mental illness or treatment for the same?

- a) Yes
- b) No

12. What would you do to a mentally ill relative or friend?

- a) Take them to hospital
- b) Take them to a witchdoctor
- c) Detain them at home
- d) Leave them to just move around
- e) Eject them from home

13. Would you accept back and freely interact with a close relative or friend who was mentally ill but has recovered?

- a) Yes

b) No

Part 2

1. Are you aware of any communication campaign(s) for mental health conducted in your residential area or school?

a) Yes

b) No

2. Have you ever attended any communication campaign for mental health?

a) Yes

b) No

3. When did you attend the communication campaign for mental health referred to in question 3? (You can tick more than one option)

a) 2011

b) 2012

c) 2013

4. Where was the venue of the communication campaign(s) referred to in question 3? (You can tick more than one option)

a) School

b) Church

c) Hospital

d) Any other place

5. Who conducted the communication campaign(s) referred to in question 3?

a) The guidance and counseling teacher

- b) A speaker hired by the school
  - c) A psychiatrist
  - d) Non-Governmental Organization personnel
  - e) A preacher
6. What were you taught about mental health in the communication campaign(s) referred to in question 3 above?
- a) Investing in mental health to lessen the disease burden and for economic development
  - b) The causes, symptoms, prevention and treatment of depression
  - c) Mental illnesses that affect older people and their symptoms, prevention and treatment
7. Did the communication campaign(s) for mental health contain messages on your susceptibility to mental illnesses?
- a) Yes
  - b) No
8. Were you given any information on the severity of mental illnesses during these communication campaign(s)?
- a) Yes
  - b) No
9. Were you told the benefits of preventing mental illnesses or seeking medical treatment for mental illnesses during the communication campaign(s)?
- a) Yes
  - b) No

10. What were you told during the communication campaign(s) could be a barrier to seeking knowledge for mental health or treatment for mental illnesses?
- a) Fear that people could see you and say that you are mentally ill
  - b) Feeling that you are not susceptible to mental illnesses
  - c) The belief that there is nothing one can do to prevent or cure mental illnesses
  - d) The belief that only witchdoctors can cure mental illnesses
  - e) Lack of money
  - f) Lack of time
11. Did you gain confidence (self-efficacy) in seeking information on prevention of mental illnesses or seeking treatment as a result of the information you got from the communication campaign(s)?
- a) Yes
  - b) No
12. Did you gain any new information about mental health from this communication campaign?
- a) Yes
  - b) No
13. How many young people who are mentally ill do you know in your community?
- a) None
  - b) Less than 5
  - c) Between 5-10

- d) More than 10
14. How many of the mentally ill that you know in your community have ever been taken to hospital by their families?
- a) All of them
  - b) Many of them
  - c) A few of them
  - d) None of them
  - e) I do not know
15. In your opinion, do communication campaigns for mental health in your community reach many people?
- a) Yes
  - b) No
16. What have communication campaigns for mental health achieved in your community?
- a) Reduced stigma associated with mental illnesses
  - b) Reduced numbers of the mentally ill
  - c) Increased numbers of the mentally ill being taken to hospital
  - d) All the above
  - e) None of the above
17. How in your opinion should communication campaigns on mental health in your area be made more effective?
- a) They should be held more regularly

- b) They should use language that people understand
- c) They should not be held in hospitals alone
- d) All the above

**Thank you for participating in this study.**

## **APPENDIX 2: INTERVIEW SCHEDULE**

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**Please answer the following questions.**

1. Have you ever taken part in a communication campaign for mental health in Nairobi County?
2. In which language are these communication campaigns conducted?
3. How often are communication campaigns for mental health held in Nairobi County?
4. Who is the target audience during these communication campaigns?
5. Do the messages conveyed in the communication campaigns for mental health in Nairobi County contain the following components of the health belief model?
  - a) Perceived susceptibility to mental illnesses
  - b) Perceived severity of mental illnesses
  - c) Perceived benefits of seeking knowledge of mental health and medical treatment for mental illnesses
  - d) Perceived barriers to seeking knowledge of mental health and treatment for mental illnesses
  - e) Cues to action
  - f) Self-efficacy
6. Have the communication campaigns for mental health held in Nairobi County been effective in enhancing knowledge?
7. If the answer to question 5 is No, please explain why you think communication campaigns have not been effective.

8. What can be done to make the communication campaigns for mental health effective in enhancing knowledge?
9. What are some of the meanings that people give mental health and mental illnesses?
10. How does the language that people use in reference to mental health and mental illnesses promote or hinder knowledge of mental health?
11. How do people's thoughts on mental health and mental illnesses promote or hinder knowledge of mental health?