

**PUBLIC RESPONSE TO THE NATIONAL SANITATION DAY CAMPAIGN: A
SURVEY OF MADINA RESIDENTS**

BY

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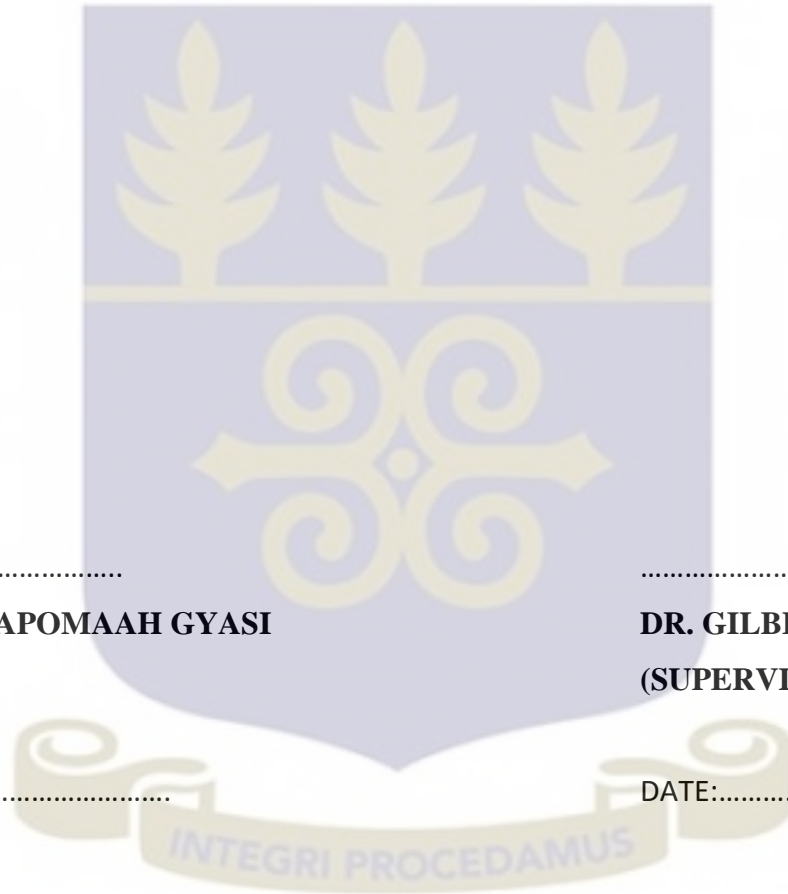
**THIS DISSERTATION IS SUBMITTED TO THE UNIVERSITY OF GHANA, LEGON,
IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF MA
COMMUNICATION STUDIES DEGREE.**



MAY, 2016.

DECLARATION

I, Abigail Agyapomaah Gyasi, hereby declare that this submission is my personal work and has not been submitted to any other universities. All sources and references that were used in this study have been acknowledged under the supervision of Dr. Gilbert Tietaah.



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DEDICATION

I dedicate this dissertation to God Almighty, who has been my provider and sustainer through this academic career.

I also dedicate this work to my parents, Mr. and Mrs. Gyasi and my sisters; Esther, Deborah and Salome, for their love, inspiration, encouragement, prayers and support.



ACKNOWLEDGEMENT

My sincere gratitude goes to my lecturer and supervisor, Dr. Gilbert Tietaah for his time, attention and suggestions that gave direction to this work.

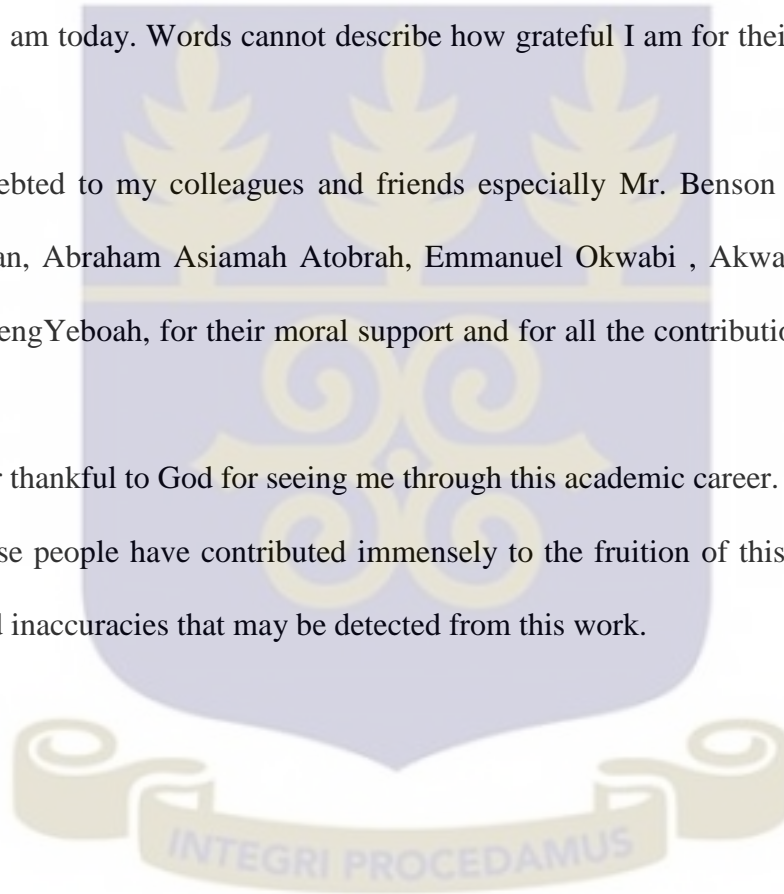
I am also very grateful to Dr. Godwin Etse Sikanku for his immense contribution towards this work. I really appreciate every support he gave me.

I am also thankful to my parents Mr. and Mrs. Gyasi for their financial support and also for making me who I am today. Words cannot describe how grateful I am for their tireless effort for supporting me.

I am forever indebted to my colleagues and friends especially Mr. Benson Osei Tutu, Halisa Aziz, Ben Borman, Abraham Asiamah Atobrah, Emmanuel Okwabi , Akwasi Okyere Donkor and Mrs. Eva ObengYeboah, for their moral support and for all the contribution they have made into this work.

Finally, I am ever thankful to God for seeing me through this academic career.

Although, all these people have contributed immensely to the fruition of this work, I am liable for any errors and inaccuracies that may be detected from this work.



ABSTRACT

The National Sanitation Day (NSD) Campaign was launched by the Ministry of Local Government and Rural Development (MLGRD) to resolve poor sanitation issues in Ghana. The campaign included a communication objective to encourage behaviour change towards good sanitation practice. The study was designed to gauge public attitude and response to the NSD campaign by surveying residents of Madina, a demographically heterogeneous community in Accra.

The Multistage cluster sampling procedure was used to select 200 respondents for the study. The research design and questionnaire constructs were driven by the Theory of Reasoned Action (TRA) and the Theory of Planned Behaviour (TPB) in the study. The key findings were that all respondents were aware and had some knowledge of the Campaign. Also, their major sources of receiving information on the campaign included television, radio and information vans. On the contrary, newspapers, family and friends were the least sources of getting information on the campaign. The campaign was found to have caused a behaviour change among majority of the residents towards proper sanitation practice.

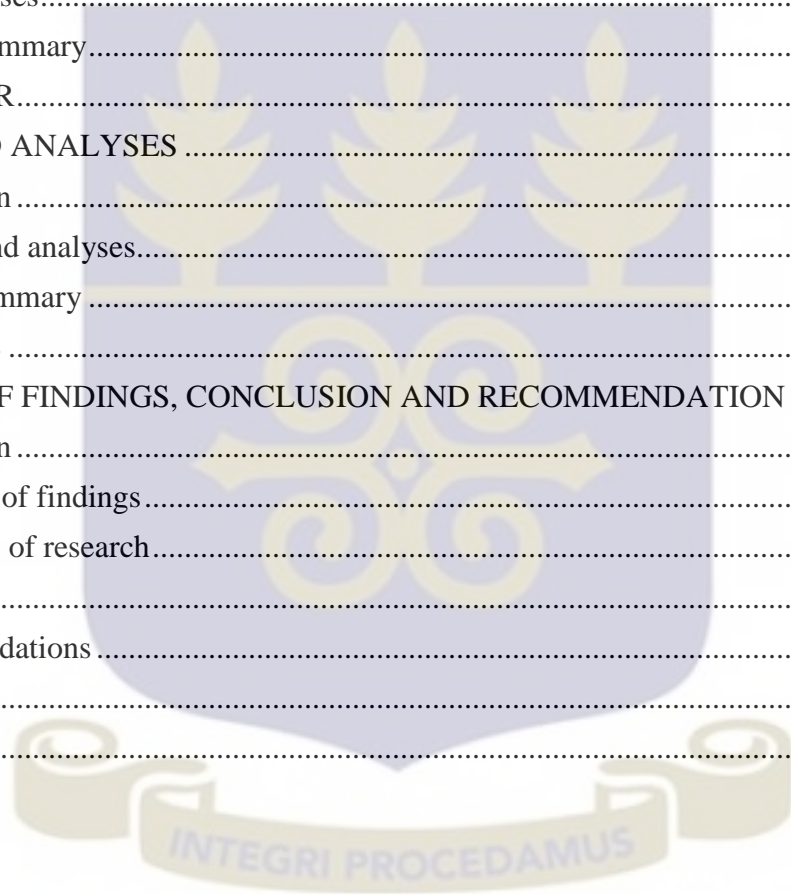
Other findings were that respondents' demographics such as age and level of education did not have much influence on their preferred means of getting information and the medium through which they first heard of the campaign.

Based on these findings, it is recommended that the MLGRD intensifies the campaign by employing other communication activities and also enforcing laws for all citizens' participation in the sanitation exercise.

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CHAPTER ONE

INTRODUCTION

1.0 Introduction

This chapter provides the background to the study by exploring the context in which sanitation becomes a subject for scholarly attention within the communication research discipline. It does this by first discussing the issue of sanitation as a crisis globally, nationally and locally. The chapter also delves into the problem statement, purpose of study, research objectives, research questions and significance of study. The rest are the scope of study, operational definitions, organisation of work and the chapter summary. All of these are addressed with reference to the “National Sanitation Day” campaign in Ghana and to the extent that communication is presumed to be central to the goals of the campaign.

1.1 Background to study

According to Owoeye and Adedeji (2013), it is expected that when the environmental sanitation standards improve in countries, there will be an uplift in the living condition and health security of the inhabitants. Similarly, Kumar *et al* (2011) assert that environmental sanitation enhances the promotion of health in communities by providing neat environment and preventing diseases. This implies that good sanitation provides a conducive environment for human existence. Closely linked to the above, Awuah (2008) also explained that sanitation is key to a country’s economic development by way of using the sanitation investments to protect the investments in the areas of health and education which generate measurable economic returns. This means that salience must be attached to issues of sanitation as a health and economic development imperative.

Sanitation has been perceived by many as a concern of environment, development and public health. Sanitation is not an unusual occurrence; rather it is an all-time issue associated with human activity. It is not confined to one setting; rather it occurs in all societies in different dimensions. The negative consequence of sanitation poses threat to the lives of all humans. Poor sanitation is more of a problem in developing countries in that, citizens continue to litter streets with plastic bags and other non-degradable materials. They also engage in open defecation and improper disposal of domestic waste (Abubakar, 1997). Ghana as a developing nation is of no exception to the poor sanitation conditions (Amoah, 2010).

In an interview with Demedeme Naah, the Acting Director of Environmental sanitation unit under the Ministry of Local Government and Rural Development (MLGRD), he said that due to the sanitation crisis which has been there over the years, MLGRD has been tasked to resolve this problem. The ministry's activities are guided by the National Environmental Sanitation policy and Action Plan and out of this; the National Sanitation Day (NSD) campaign has been launched. By using the Information, Education and Communication (IEC) approach in the National Sanitation Day campaign, citizens are being sensitised to change their attitudes and behaviour toward poor sanitation practice. This study sought to investigate the public response to the NSD campaign.

1.2 Sanitation as a Global Concern

According to World Health Organisation (WHO) and United Nations Children's Fund (UNICEF, 2008), adequate sanitation is basic to the health of every individual in a country thereby

considering the Millennium Development Goal 7 which specifically deals with ensuring environmental sustainability. The target of this goal is for national governments and institutions to provide basic sanitation to the world's population who do not have access to proper sanitation by the middle of 2015. By engaging in public communication campaigns on ways and means to manage human waste and activities, sanitation issues can be tackled properly to improve the health conditions of citizens.

The focus to resolve sanitation crisis is part of the priorities of nations which are concerned with development. Lack of proper sanitation brings about communicable diseases which spread widely and affect human resources (Bhide, 2009). Poor sanitation can cause ailments such as malaria, cholera, trachoma, among others. According to WHO/ UNICEF (2014), about two point five (2.5) billion people in different continents in the world do not have access to adequate sanitation and also about one point two (1.2) billion people equivalent to 46 countries do not have access to sanitation facilities. Though sanitation has improved since 1990, improper sanitation practices continue to plague the health and sustainable economic growth and development of populations and countries (WHO/UNICEF, 2014). Poor sanitation has been the major cause of diseases that affect the health of entire populations and also retard the economic development of various countries worldwide (Amoah 2010).

A study conducted by the World Bank in 2012 complemented what WHO has said about poor sanitation. It stated that poor sanitation is not only seen as a threat to the public health sector but also, a barrier to sustainable development which drains the larger part of a country's financial resources. From the report by the World Bank's Water Sanitation Program, about \$5.5 billion is

used annually to address poor sanitation issues in eighteen (18) African countries. This loss in expenditure causes economic damage ranging from 1% to 2.5% of the World Bank's Gross Domestic Product (GDP). According to the report, poor sanitation causes Kenya, for instance, to lose \$324 million, Democratic Republic of Congo \$208 million, Tanzania \$206, Zambia \$194 million and Ghana \$290 million. Considering the huge sums of money used in solving sanitation problems, issues of sanitation must be a concern to all.

1.3 Sanitation in Ghana

Ghana, just like any other developing country, is challenged with sanitation crisis. According to WHO/UNICEF report in 2015, Ghana was ranked as the seventh filthiest country in the world. On the basis of the ranking, Boamah (2015) described Ghana's situation as "sanitation insanity" which demands the collective effort of all Ghanaians to resolve. The Ministry of Local Government and Rural Development is mandated to handle environmental sanitation conditions. Based on this responsibility, the ministry came up with a policy in 1999 which was subsequently revised in 2010 (National Environment Sanitation Strategy and Action Plan, 2010).

The policy categorises sanitation under the following:

- a) Collection and sanitary disposal of wastes, including solid wastes, liquid wastes, excreta, industrial wastes, health-care and other hazardous wastes;
- (b) Storm water drainage;
- (c) Cleansing of thoroughfares, markets and other public spaces;
- (d) Control of pests and vectors of disease;
- (e) Food hygiene;

- (f) Environmental sanitation education;
- (g) Inspection and enforcement of sanitary regulations;
- (h) Disposal of the dead;
- (i) Control of rearing and straying of animals;
- (j) Monitoring the observance of environmental standards

The policy brings to bare the various ways in which sanitation issues can be looked at in the country. Also, the policy aims to meet the standard set by the United Nations in the Millennium Development Goal 7 on water supply and sanitation.

The MDG7 aims to improve upon access to safe water and sanitation by 50% in the year 2015 and by 75% by the year 2025. According to Ghana Water and Sanitation Program (2012), Ghana loses about four hundred and twenty million Ghana cedis (GHC 420,000, 000) every year through poor sanitation. It also added that, poor sanitation has great effect on the poorest in Ghana. It is also revealed that poor sanitation fuels outbreak of epidemic leading to deaths, water pollution and reduction in tourism. As a result of poor sanitation in the country, many lives are lost annually during cholera outbreak. Over 26,286 cholera cases were reported in 2014 resulting in 211 deaths and about 123 districts were affected from all the 10 regions in Ghana (World Health Organization, 2014).

This shows that Ghana is nowhere near what the policy intends to achieve on environmental sanitation conditions. The government has not been able to meet the MDG 7 target which aims to improve on sanitation conditions by 50% in 2015.

1.3.1 National Sanitation Day Campaign

The National Sanitation Day (NSD) Campaign is an initiative by the Ministry of Local Government and Rural Development as a way of curbing poor environmental sanitation conditions that lead to cholera outbreaks and other ailments. The campaign was launched in October, 2014 when cholera outbreak reached its peak in the country. The sole aim of the campaign is to change the attitudes and behaviour of citizens towards proper sanitation practice.

The NSD campaign exercise is done every first Saturday of every month where a nationwide clean up exercise is embarked upon and is climaxed in a selected region. Since October, 2014 when the campaign was initiated up to 2015, ten major clean-up exercises have been embarked on. So far, the events have been climaxed in Greater Accra, Ashanti, Northern, Volta, Eastern, Brong-Ahafo, Upper East, Upper West, Central and Western Regions of Ghana.

1.4 Sanitation and communication

Poor sanitation issues must be a concern to all nations and societies. This concern should translate into implementing intensive measures to resolve the problem associated with it. Scholars have already noted that effective management of environmental issues such as sanitation cannot be possible without effective communication. (Gao *et al*, 2007; Gazard, 2014). Efforts to combat this problem should take into cognisance the role of communication. The National Environmental Sanitation Strategy and Action Plan (NESSAP) helps to identify seven important areas that can drive efforts in achieving good sanitation in the country. These areas

are: information, education and communication, legislation and regulation, levels of Service, sustainable financing and cost recovery, research and development and monitoring and evaluation. Previous studies done on environmental sanitation campaigns revealed some communication approaches such as the Information, Education and Communication (Maloreh-Nyamekye, 2013; Sriram & Maheswani, 2013) and Community-Led Total Sanitation (Vicas & Mahi, 2008) strategies that were used to achieve campaigns' purposes. The common thread in these approaches is the central role of communication in social and behaviour change campaigns. Communication plays an important role in public campaigns which inform and educate people and through this it can cause a behaviour or social change. Comparatively, the NSD campaign also employs communication as an effective tool to achieve the campaign's aim of sensitizing people on proper sanitation practices. By this, the interpersonal and mass communication approaches are employed by the campaigners in order to cause behaviour change among citizens. It is important to effectively communicate issues surrounding environmental sanitation as it is likely to cause behaviour and social change in individuals in a given society. Effective communication is a two-way flow where audiences do not only receive the information but also, give feedback. This feedback can be realised through the responses that respondents give.

1.5 Problem statement

Ghana faces a major urban and rural sanitation crisis that causes diseases and impedes development (Amoah, 2010). Government spends a large part of national resources to solve sanitation problems (Amoah, 2010). This undoubtedly has had negative impact on the health of the citizens. For example with the issue of cholera outbreaks, 9,542 cases with 100 deaths were recorded in 2010, 10,628 cases were recorded with 105 deaths in 2011, and the most recent

outbreak in 2014 claimed 247 lives out of 28,944 individuals infected (Ghana Health Service, 2014).

Another instance of the negative effects of poor sanitation conditions can be traced to the June 3 flood disaster which claimed many lives in the Greater Accra region. In media interviews following the June 3 flooding in Ghana, Collins Dauda, Minister for Local Government and Rural Development, and Alfred Vanderpuije, Mayor of Accra, attributed the severity of the flooding partially to the choked gutters. To resolve this problem of poor sanitation and its associated health impacts, Ghana's Ministry of Local Government and Rural Development launched the National Sanitation Day Campaign in October 2014. A lot of resources and efforts have been spent on the campaign; including radio and television messages, information van announcements and newspaper ads.

With both quantitative and qualitative data, Amoah (2010) used an institutional assessment procedure to investigate intra-institutional and inter-institutional challenges of the indiscriminate disposal of solid waste in Kumasi. Similarly, Atuahene (2010) employed a case study design to investigate sanitation services delivery in the Ejura-Sekyedumase District.

Both studies examined the reality and challenges of sanitation issues in Ghana but not the effectiveness of the sanitation campaign messages. This study therefore focused on how the public have responded to the National Sanitation Day Campaign in Ghana, by surveying residents of Madina. Specifically, the study investigated Madina residents' sources of information on the campaign, their level of awareness of the campaign, and their reported behavior change if any in response to the campaign.

1.6 Objective of study

The objective of this study was to investigate public response to the National Sanitation Day campaign among Madina residents. The specific objectives were:

1. To determine the levels of awareness and knowledge of residents of the NSD campaign.
2. To find out how Madina residents perceived the campaign.
3. To find out residents' sources of information on the campaign.
4. To determine if the campaign had caused any behavior change among the residents.

1.7 Research questions

The following research questions guided the study:

1. What are the levels of awareness and knowledge of Madina Residents of the campaign?
2. What perceptions do residents have of the campaign?
3. What are the main sources of information of Madina residents of the campaign?
4. In what way (s) has the campaign changed residents' behaviour towards sanitation?

1.8 Significance of study

Although many studies have tackled poor sanitation issues in other fields, few have been done in the area of communication in Ghana. Therefore, the NSD campaign which seeks to sensitize people on the effects of poor sanitation practice would be evaluated in this study and would add to the body of knowledge on behaviour change campaigns. Thus, the study will serve as a guide to researchers and campaign implementers who would want to evaluate or assess public communication campaigns in the future.

Also, it will serve as the reference point for the ministry to improve upon the campaign. Thus, planners and implementers of the campaign can employ these measures to intensify the campaign in the future.

1.9 Scope of study

Though the campaign is a nationwide affair, the researcher sought to limit the study to Madina due to time and financial constraints. Moreover, since Madina is one of the central business districts in Accra and has a large population, the stratified and systematic sampling methods were used to get the sample size for the study.

Madina is one of the suburbs of Accra which is located in the La-Nkwantang Madina Municipal Assembly in the Greater Accra Region. It is part of the Abokobi-Madina electoral constituency in Ghana. It is rated as the twelfth most populated suburb in Accra with a populace of about 137,162. Madina has been segmented by the Municipal Assembly into three areas namely Madina Old Road, Madina New Road and Estate. The study focused on all Madina residents in general.

1.10 Operational Definitions

Sanitation is described as every human practice that has positive and negative effects on the health and lives of human beings and animals. In this study, sanitation included refuse disposal and management, choked and filthy gutters, plastic waste, industrial waste, liquid waste and water pollution.

Campaign: It is an initiative of action that employs communication activities to effect change in behaviour.

Response: explains how Madina residents are reacting to campaign messages such as participating in the clean - up exercises, keeping the environment clean etc.

Sources of information: The various avenues through which people receive national information.

Level of awareness: The extent to which residents know about the National Sanitation Day campaign

Behaviour Change: This explains whether the campaign had changed the behaviour of residents towards poor sanitation practice.

1.11 Organisation of Work

Chapter one outlined the introduction, background to the study, problem statement, purpose of study, research objectives, research questions, significance of study, scope of study, operational definitions, limitations of study, organisation of work and chapter summary. Chapter two will focus on the theoretical framework, related literature to the study and chapter summary. Chapter three will outline the research design, population, sampling technique and procedure, sample size, data collection methods, data analysis and chapter summary. Chapter four will delve into the findings and its analysis and conclude with chapter summary. Finally, chapters five will cover the discussion of findings, conclusions and recommendations and then end with chapter summary.

1.12 Chapter Summary

This chapter began with an introduction, then moved to background to the study which laid emphasis on sanitation as an important issue, sanitation crisis from the world view and narrowing down to the NSD campaign in Ghana. The other part of this chapter focused on the problem statement, research objectives, research questions, significance of study, and scope of study, operational definitions and the limitation of study. The next chapter explains the theoretical framework and reviews some related studies.



CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

The main objective of this chapter is to review relevant studies related to how the Ghanaian public responded to public communication campaigns in the areas of science, environment and sanitation both within and outside Africa and also present the theoretical framework underpinning this study. The review draws on previous studies done in the area of perception, knowledge/awareness, and sources of information as well as behavior change in public communication campaigns (mass media campaigns, public health campaigns) in broad spectrum and specifically in science, environment and sanitation campaigns. Also, this chapter offers some historical background on theories of reasoned action and planned behaviour, scholarly definitions and their explanations and how they have been applied in other studies.

Public communication campaigns are an important part of national activities undertaken by governments, organisations or agencies. These campaigns have focused on a large variety of issues including health (Sly *et al*, 2001; Hafstad & Aaro, 1997; Pierce *et al*,1990; Huhman *et al* , 2005; Lau *et al*, 2003; Hornik *et al*, 2008; Beaudoin *et al*, 2007; Puhl *et al*,2013; Desa *et al*, 2011; Deurenberg-Yap, 2005) sanitation and hygiene (Hsiu-Hua *et al*, 2002; Grodzinska-Jurczak *et al*, 2005; Fahy, 2005;Idamah, 2015; Fauziah *et al*, 2010 and environment(Wouter *et al*, 2011; Plendleton *et al*, 2001; Okazaki *et al*, 2013; Staats *et al*, 1996) . Though this study specifically looks at the issues surrounding environmental sanitation, the first section reviews literature generally related to public communication campaigns. The next section reviews literature related to sanitation and hygiene and environment campaigns.

2.1 Theoretical framework

Severin and Tankard (2001) define theory as a set of systematic generalizations which are based on empirical observation. It is useful for guiding research studies and for planning, implementing and evaluating interventions (Trifiletti *et al*, 2005). Theory helps to explain what one intends doing and what can be achieved. In respect to this study, the primary purpose was to evaluate the NSD campaign for which the theories of reasoned action and planned behaviour were considered appropriate; primarily because the NSD campaign sought to change behaviour.

2.1.1 Theory of Reasoned Action (TRA)

Many evaluation studies on communication campaigns in the areas of public health (disease prevention behaviour, birth control, physical activity), public will (environment sanitation, youth anti-drug) have employed the theory of reasoned action. According to Weaver (2010), one of the most frequently used behaviour theories in campaign evaluation, is the Theory of Reasoned Action (TRA). Also, Slater *et al* (1998) assert that TRA is one of the popularly used theories in behaviour-attitude theories. This explains the relevance of the theory in behavior change communication campaigns.

Ajzen and Fisbein (1980) developed the theory of reasoned action from the social psychology perspective with the main motive of establishing a relationship between attitude and behaviour. This implies that attitudes of individuals can affect their behaviour by influencing their intentions first. In relation to the National Sanitation Day Campaign, the main purpose is to change Ghanaians' behaviour towards proper sanitation practices. In changing the attitude and behaviour of the people towards the given behaviour, communication activities must be employed. Theory

of Reasoned Action (TRA) proposes that a person's behaviour is determined by the intention to perform the desired behaviour. Therefore, intentions can be influenced by the attitude and subjective norms of a desired behaviour. In other words, one's intention is the function of his attitude toward the behaviour and subjective norm. In the context of the National Sanitation Day campaign, a new behaviour is given to citizens to change poor sanitation practices and encourage recommended behaviour. The intentions to adopt this new behavior may depend on the perceived outcome or the influence of their social norm.

According to Hankins *et al* (2000), the Theory of Reasoned Action (TRA) has successfully predicted diverse behaviours. However, the desired behaviour is performed under volitional control. Behaviour is said to be under volitional control when there are no environmental and personal interferences in performing the given behaviour. This explains that a person's intent to perform a desired behaviour is voluntary. He or She perceives the positive/negative outcome(s) of the given behaviour and then decides to adopt or ignore it since he/she is not being forced. Thus, before individuals decide to take actions towards a given behaviour, he/she processes and makes use of the information given on that particular behaviour. In a way, he/she considers some important factors/reasons before an action is taken. Therefore, the Theory of Reasoned Action (TRA) focuses on three key constructs which are attitudes, subjective norms and behavior intention.

According to Godson-Amamoo (2008), attitudes constitute beliefs that a person has accumulated throughout his or her life. These may have been formed from direct experience, outside information or by inference. However, only a few of these beliefs work to influence a person's

attitude. These beliefs are the direct determinants of a person's attitude according to Ajzen and Fisbein (1980). Werner (2004) also sees attitude to be a person's perception (either favourable/unfavourable toward a desired behaviour. This means a desired behaviour could only be performed based on what a person thinks of the given behaviour.

In respect to sanitation issues in Ghana, some Ghanaians have formed the impression that no amount of campaigns to resolve this problem will succeed. This is said on the basis of their experiences in the past and also from the comments made by some significant others in the society. More so, some citizens believe that because laws have not been enforced in addressing sanitation issues, it may be reason for not finding solutions to the problem. Similarly, attitudes of Ghanaians toward sanitation may have been formed as a result of what they have learnt from family and friends. This may explain why series of campaigns to resolve sanitation problems have proved futile. These were shared by some citizens during a personal interview conducted by the researcher.

A subjective norm is another key construct in the theory of reasoned action. This construct explains the beliefs significant people hold that can influence a person's intention to perform a new behaviour. The significant people are the influential people (family, friends, and members of associations, public and civil servants, government officials) within a society who can influence others to adopt a behavior. For example, President Dramani Mahama, Vice President Paa Kwesi Amissah Arthur and Otumfuo Osei Tutu II were seen taking part in the National Sanitation exercises. Based on the logic of subjective norm, this should have inspired the ordinary Ghanaian

to perform this new action. Their performances in the exercises may have influenced the intentions of some citizens to adopt the new behaviour.

Behaviour intention is the primary construct in performing a given behaviour. According to Ajzen and Fisbein (1975), a person's behaviour intention is influenced when an individual is motivated to engage in a behaviour which is defined by attitudes that influence the behaviour. Intentions are the psychological things that one has purposed in mind. Godson-Amamoo (2008) asserts that behavior intentions are the probability that a person will perform the desired behavior after hearing the campaign message. It is influenced by attitudes and subjective norms. In respect to the National Sanitation Day campaign, the message is to conscientise people on proper sanitation practice and the people's intentions to perform the desired behaviour can be influenced by attitudes or subjective norms.

Though the theory of reasoned action has been the most popularly used behaviour change theory in evaluating public communication campaigns, it has been criticised by some researchers. Abelson *et al* (1982) criticised the strength of attitude-behaviour relationship in that when the theory focuses on a specified relationship, it ignores some of the salient parts of attitude-behaviour dynamics. Also, from the social constructionist point of view, Kippax and Crawford (1993) noted that the theory is sure to fail in that it overlooks the fundamentally social nature of human actions. Similarly, Grandon *et al*, (2004) and Werner (2004) criticised the theory for rejecting the relevance of social factors that could be determinants for individual behaviour in real life situations.

2.1.2 Theory of Planned Behaviour (TPB)

The theory of planned behaviour is an extension of Theory of Reasoned Action (TRA) that was developed by Ajzen and Fishbein in 1985. It builds upon the theory of reasoned action which adds the perceived behaviour control construct to attitudes, subjective norms and behaviour intentions. The basic intention of this theory is to predict and understand an individual's intention to perform desired behaviours that are not under volitional control. The perceived behaviour control which distinguishes Theory of Planned Behaviour (TPB) from Theory of Reasoned Action (TRA) helps one to evaluate the ease and difficulty in performing a given behaviour. This implies that for a person to accept a given behaviour, he or she perceives the outcome whether negative or positive before the behaviour is adopted. Also, Ajzen (1991) explains the perceived behaviour construct as an individual's perception on how a particular behaviour would be performed easily. Thus, a given behaviour would be performed based on what an individual thinks of the behaviour.

According to Ajzen (2008), an individual's intention to perform an act is determined by attitudes, subjective norms and perceived behaviour control. These constructs inform us that before one performs a given behaviour, one may have been influenced by three factors:

1. One's personal attitude.
2. One's significant others.
3. One's ability to control that behaviour.

Similarly, this theory was applied to this current study which sought to evaluate the NSD campaign by looking at the behaviour of residents concerning proper sanitation practice.

Although the theory of planned behaviour (TPB) had been used by quite a large number of researchers in evaluating communication campaigns, Schwartz (1992) has debunked the theory saying it is too subjective as it ignores the vital social variables and also fails to define the relationship between the different health beliefs.

Despite the criticisms of Theory of Reasoned Action (TRA) and Theory of Planned Behaviour (TPB), from Abelson *et al*, 1982; Kippax & Crawford, 1993 ; Grandon *et al*, 2004; Werner, 2004 ; Schwartz, 1992; these theories were relevant to this study. The two theories aided in the formulation of the research objectives and questions of this study to find how people responded to given/desired behaviours. The application of TRA and TPB to this study helped the researcher to examine respondents' level of awareness, sources of information, perception and behaviour on the National Sanitation Day campaign.

2.2 Related Studies

Public communication campaigns

Rice and Atkin (2013, p. 527) define public communication campaign as:

...purposive attempts to inform, persuade or motivate behavior changes in a relatively well-defined and large audience generally for non-commercial benefits to the individuals and/or society at large, typically within a given time period, by means of organized communication activities involving mass media often complemented by interpersonal support.

This definition suggests four basic elements that are considered in organising public communication campaigns. These elements explain that communication campaigns are organized for a specific purpose and are targeted at a large audience within a stipulated time period during which series of communication activities are undertaken. With regard to the

MLGRD National Sanitation Day campaign as an example of a public communication campaign, the purpose is to sensitize all Ghanaians to change their attitudes towards poor sanitation practice. This would avoid diseases such as cholera and malaria and also stem the incidence of flooding disasters which are encountered annually. This campaign started in 2014 and is still ongoing. To make it effective, citizens are informed and educated through mass media such as television, radio and information vans and by interpersonal means, such as family, friends, etc.

According to Coffman (2002), there are two types of public communication campaigns and they are the individual behaviour change and public will. Individual behaviour change campaigns are organised to effect change in individuals with behaviour that can cause social problems or to encourage behaviours that can lead to improved individual or social well-being. In contrast, public will campaigns try to organize public action for policy change.

The primary objective of public communication campaigns is to change behaviour or create awareness thereby using knowledge, attitude and behaviour as determinants (Rice & Atkin, 2013; Coffman, 2002; Godson-Amamoo, 2008). In evaluating such campaigns, survey is usually considered as the most appropriate research method. This method aids in the evaluation of both short and long term measures. Short term measures usually involve target audiences' ability to recall messages, their current related attitudes, and their intentions to change as well as identifying behaviour change. This implies that the short term outcome measures resonate with audience's likeability of campaigns and their ability to perceive message effectiveness in public communication campaigns. The long term measures on the other hand focus solely on behaviour change which is supported by theories such as theory of planned behaviour and theory of

reasoned action (Rice & Atkin, 2013). Considering the purpose of the National Sanitation Day campaign, it can be tied to the individual behaviour change which intends to change individuals' attitudes towards improper sanitation practice.

According to Bauman *et al* (2005), the use of both mass media (television, radio, billboards, Internets); brochures, pamphlets and interpersonal sources (workshops, family, friends , face to face meetings) in communication campaigns helps to increase the levels of awareness and knowledge. In like manner, residents' sources of information on the campaign will be investigated in order to know how well residents are responding to campaign exercise.

Through these different sources of information, the effects of public communication campaigns could be measured from both the implementers' and respondents' points of view. However, for the purpose of this study, the related studies reviewed focused on the respondents' point of view in relation to the different public communication campaigns that were done in different countries.

Wouter *et al* in 2011 conducted a study to examine people's level of awareness, perception and behaviour on the radon-related campaign conducted between 2001 and 2005. It also sought to determine if the radon awareness and the testing campaign had had any effect on the people. The research design and constructs were driven by the theory of planned behaviour. The researchers surveyed a sample of 1,578 from the entire population. The research found that respondents who lived in the participating local authorities had higher levels of radon awareness than the participants who were living in non-participating local authorities and those with the higher levels of awareness were more likely to have tested their home than the later. The study

concluded that the radon campaign had been effective in raising awareness and testing rates and it could be more effective in South England if several risk communication campaigns were reinforced into the system. In like manner, this current study also sought to examine the residents' level of awareness of the National Sanitation Day Campaign and also to determine if the campaign had had any effect on residents by applying the theory of planned behaviour in the evaluation.

Similarly, Huhman *et al* (2005) were also interested in evaluating the initial outcomes of the “VERB” campaign on the levels of physical activity in USA. The campaign chose the word VERB as the brand name, drawing on the meaning of “verb” as the grammatical term for action. The purpose for their study was to determine the immediate effects of the mass media campaign based on the levels of awareness and understanding of the children between the ages of 9-13 to help develop campaign messages for the subsequent years. Though the campaign was based on social marketing principles, the theory of reasoned action was used in evaluating the attitudes and behavior towards the VERB campaign.

The study revealed that 17 percent of the children had (unprompted) awareness of the campaign, 57 percent had (prompted) awareness and a quarter of them were not aware of the campaign. Based on their understanding levels, 43 percent of the children (between the ages of 9-13) had high levels of understanding of the campaign. It was also found that television was the most commonly used source of creating awareness and the second largest source of creating awareness was magazines. In respect to this study, the theory of reasoned action was also applied

in this study to determine the residents' levels of awareness/knowledge of the National Sanitation Day campaign.

Staats *et al* (1996) did a study in Netherlands to evaluate a mass media public information campaign about the green house. The purpose of the study was to assess the knowledge/awareness levels of people about the campaign and also assess the influence of knowledge, perceived seriousness and emotional concerns of the people's favourable environmental behaviour. A survey questionnaire which was categorised under three broad topics included knowledge and awareness levels as well as voluntary behaviours. The study revealed that the campaign did not change the current behavior and cognitions of the target population.

Deurenberg-Yap (2005) was also interested in assessing a public education campaign that was initiated during the Severe Acute Respiratory Syndrome (SARS) outbreak in Singapore. One of the objectives of the study was to assess people's level of knowledge about the SARS outbreak where a survey was done to collect data. The study revealed that people's level of knowledge about the outbreak was low. Likewise in this study, the researcher is interested in examining the respondents' level of knowledge/awareness of the National Sanitation Day campaign.

In another study, Beaudoin *et al* (2007) evaluated the short-term effects of a mass media campaign used in promoting healthy eating and physical activity in New Orleans, USA. Using a survey method, the study sought to evaluate the campaign that sought to promote healthy eating and physical activity. The study found that African Americans had high levels of message recall

on fruit and vegetable and walking than the other groups. The study concluded that the media campaign seemed to have caused vast improvement in people's attitudes toward healthy diet and walking behaviours addressed by the campaign. This current study also used the survey method to elicit public responses to the National Sanitation Day Campaign.

Hornik *et al* (2008) also conducted a study to examine the effects of the National Youth Anti-Drug Media campaign on Youths in USA. The purpose of the study was to examine the cognitive and behavioural effects of the media campaign on the youths aged 9 to 18 years. The study revealed that the campaign succeeded in achieving high level of exposure to its messages among the youths through the various media outlets that were used. However, there has not been any evidence that the high levels of exposure had affected the youths' marijuana use as desired.

Puhl *et al* (2013) also did a study to assess public perception of obesity related public health campaigns in USA. Data was collected using the survey questionnaire. The findings of the study were that campaigns with stigma elements were not likely to motivate the obese to improve their lifestyle behaviours and stigmatising campaigns were rated as inducing less self-efficacy among obese people. In respect to the NSD campaign, the researcher is also interested in knowing how residents of Madina perceive the campaign through the survey approach.

Hafstad and Aaro (1997) did a study in Norway to evaluate and describe the short term reactions of an anti-smoking mass media campaign. A survey was conducted in this particular study. Based on the awareness and exposure to the campaign, it was found that majority of the adolescents remembered being exposed to the campaign.

Also, advertisement on the campaign attracted the highest attention in newspaper as compared to posters, television spots and movie spots. On the level of interpersonal communication, a greater number of the girls than the boys had discussed the campaign with someone. Majority of the girls who were smokers had had discussions more than the girls who were non-smokers. It was also found that their peers were their most frequent discussion partners as compared to parents and these discussions had positive reflection on their attitudes towards the campaign. On the affective reactions to the campaign, a greater number of the non-smokers had stronger positive reactions towards the campaign than the smokers and the boys reacted more strongly than the girls. On the level of behaviour reactions attributed to the campaign, a greater number of the boys than the girls reported positive behaviour reactions to the campaign where half of the non-smoking boys said that the campaign had strengthened their intentions to remain non-smokers. A greater number of the boys than the girls who were smokers also said they had managed to quit smoking. On the other hand, a greater number of the girls than the boys who were smokers said the campaign had not affected their decision in quitting smoking.

Sly *et al* (2001) also did a study in Florida to assess attitude and smoking related behaviour as a result of the anti-tobacco campaign. The research adopted a survey for data collection. It was found that the campaign had strongly changed the attitudes and behaviour of the youths. The study concluded that the youth had higher levels of recall as there was a significant change in their attitudes and beliefs and also reduced smoking behaviour among the youths because of the campaign strategies that were employed. This study placed in the above context also sought to examine people's attitude towards sanitation campaign.

Similarly, Pierce *et al* (1990) also assessed the effectiveness of a mass media led antismoking campaign in Australia. The survey method was used to collect the data for this study. It was found that two-thirds of the community members were aware of the antismoking campaign. Dixon *et al* (1998) also examined public awareness of the Victoria's "2 Fruit 'n' 5 Veg Every Day" campaign in Australia. Since the health of the Australians was a major concern, the eating of fruits and vegetables everyday campaign was introduced. Likewise, the health of Ghanaians is a concern to the government and that is the reason for launching sanitation campaign. With regards to present the study, the researcher is also interested in examining residents' level of awareness of the NSD campaign.

Lau *et al* (2003) also conducted a study to report the changes in attitudes, knowledge and behaviours of people regarding the SARS epidemic education campaign. This study employed the telephone survey method. A part of the findings on the sources of information on SARS revealed that 89.8 percent obtained information from television; 71.1 percent obtained information from newspapers, and 27.1 percent received information from radio. Less than 10 percent were getting SARS information from friends (8.7 percent) and 3.3 percent were getting such information from the internet.

Okazaki *et al* (2015) also investigated the right sources of information on the campaign. A survey was used to collect data from respondents. In like manner, this current study sought to find the sources of information of residents on the NSD campaign.

Science/Environment/Sanitation campaigns

Idamah (2015) was interested in determining inhabitants' attitudes towards solid waste management through broadcast media enlightenment campaigns in Nigeria. Using the theory of reasoned action, the people's attitudes to solid waste management were studied. A survey questionnaire was used to collect data from respondents. His findings were that 37.2 percent of the respondents were sure they had changed their ways of reducing waste generation whereas 9.4 percent were not sure whether they have changed. 14.2 percent were very sure they had changed whilst 39.1 percent were not very sure they have changed. Also, 16.6 percent were sure of participating in the monthly sanitation exercise, 50 percent were very sure, 25.1 percent were not sure and 8.3 percent were not very sure. Information on the campaigns (solid waste management) was received through radio and television stations. The study concluded that the broadcast media enlightenment campaigns on solid waste had increased residents' awareness and knowledge on the right attitude to waste management. In like manner, the present study which sought to investigate public response to the National Sanitation Day Campaign also employed the survey method and questions were asked on their attitudes and behavior, awareness and knowledge levels as well as the sources of information on the campaign. Also, in measuring the attitudes and behaviour of respondents as a result of the campaign in the previous study the theory of reasoned action was used.

In 2002, Hsiu *et al* conducted a study in South Taiwan to evaluate the effectiveness of a community-based cleanliness campaign. Their study employed the survey questionnaire to investigate citizens' knowledge and behaviour towards the cleanliness campaign. They found that majority of the population had sufficient knowledge about the dengue vectors as a result of

the campaign. They concluded that such campaigns could help in changing behavior towards environment sanitation. With regard to this current study, two out of the four broad categories on the questionnaire focused on the residents' knowledge and behaviour change as a result of the campaign.

Plendleton *et al* (2001) were interested in knowing Los Angeles residents' environment perception and also their recreational experiences. They used the survey method to collect data. In administering the questionnaire, both English and Spanish languages were used. Comparatively to this present study, both English and Twi languages were used in administering the questionnaire because Madina is a heterogeneous environment where different people from diverse backgrounds live. Survey results showed that a greater number of the residents recalled announcements made on the beach closure.

In Ireland, Fahy (2005) examined public attitudes and actions towards waste. In examining the attitudes and actions, the theory of reasoned action was used to investigate the relationship between attitudes and waste management. Similarly, this current study sought to investigate residents' attitudes and intentions towards proper sanitation practice in Madina as to whether the sanitation campaign has caused a behavior change. This study was done through the survey approach where items on the questionnaire included awareness, attitudes and behaviour on environmental and waste management. It was found that about 91 percent of the respondents agreed that waste management was one of the major environmental problems in Ireland.

Similarly, Desa *et al* (2011) also assessed students' knowledge, attitudes, awareness status and behaviour on solid waste management campaign in Malaysia. The study was conducted through the survey method. Some findings of the study were that 36.2 percent had no knowledge of the programme, 34.1 percent had positive attitude toward the programme whereas 65.9 percent had negative attitude towards the programme. Also, 64 percent had high awareness status whilst 36.2 percent had low awareness status. 42.8 percent had high behaviour and practice level whereas 57.2 percent had low behaviour and practice level as a result of the programme. In a similar manner, this present study was interested in determining the levels of knowledge and awareness of Madina residents of the NSD campaign and also knowing their attitudes and behaviour as a result of the sanitation campaign.

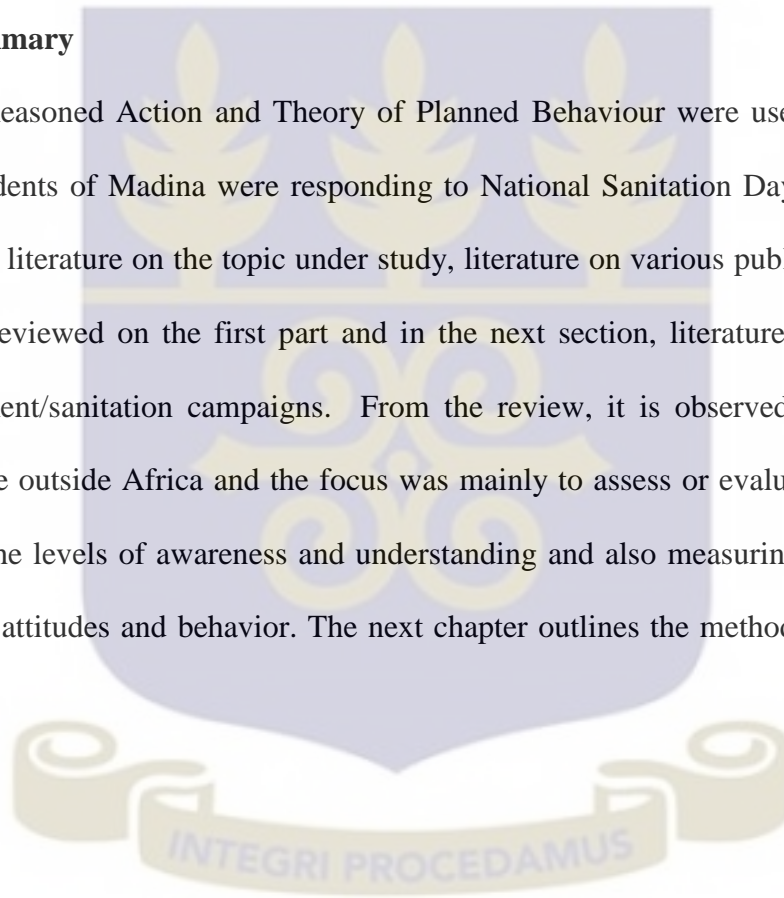
Grodzinska-Jurczak *et al* (2005) also examined the effects of educational campaigns on municipal solid waste management in Poland. A survey was conducted on how the people perceived and managed their wastes. The study revealed that the educational campaign on solid waste management was successful because there was increase in recycled waste collected and also most of the inhabitants participated in the exercise. In a way, there was change in the attitudes of citizens towards proper solid waste management as a result of the campaign.

In Malaysia, Fauziah *et al* (2010) using a questionnaire, investigated public perception regarding waste management. The questionnaire focused on the publics' knowledge on the sustainable waste public cleansing management bill that was passed in 2007. The study revealed that majority of the respondents was not aware of the bill.

In conclusion, the literature reviewed for this study is relevant in diverse ways. While some studies focused on objectives (Wouter *et al*, 2011; Okazaki *et al*, 2015, etc) others focused on the theories (Idamah, 2015; Fahy, 2005; Huhman *et al*, 2005, etc), methodological approach (Hsiu *et al*, 2002; Sly *et al*, 2001; Puhl *et al*, 2013, etc.), findings (Hornik *et al*, 2008; Beaudoin *et al*, 2007; Hafstad & Aaro, 1997, etc.) and conclusions (Hsiu *et al*, 2002)

2.3 Chapter summary

The Theory of Reasoned Action and Theory of Planned Behaviour were used in this study in finding how residents of Madina were responding to National Sanitation Day campaign. Since there was limited literature on the topic under study, literature on various public communication campaigns was reviewed on the first part and in the next section, literature was reviewed on science/environment/sanitation campaigns. From the review, it is observed that most of the studies were done outside Africa and the focus was mainly to assess or evaluate the campaigns by determining the levels of awareness and understanding and also measuring the effect of the campaign on the attitudes and behavior. The next chapter outlines the methodology used in the study.



CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter outlines the methodology that was used to undertake this study. It covered the research design, research approach, population and sampling technique, sampling procedure, sample size, data collection instrument and methods and data analysis.

3.1 Research design

According to Burns and Grove (2001), a research design aids the researcher to strategize and implement the study in a manner which will help the researcher to achieve the proposed results. It guides the researcher through the study and enables the researcher to collect rich data for specific study areas.

The researcher employed a quantitative method in designing the study. In order for researchers to get answers to research questions and also to meet the research objectives, one of the following methods could be employed: quantitative or qualitative or triangulation. According to Wimmer and Dominick (2011), quantitative research is the type of method that deals with the number of times variables occur and these are represented in figures. It enables variables found often in a study to be measured.

Cohen *et al* (2004) described quantitative research as a systematic and scientific investigation of data and their relationships. This implies that working with the quantitative method in a study or

project provides the researcher with a systematic procedure which enhances rich data collection and accurate findings.

The use of numbers to represent findings from a study gives accurate and precise results. This implies that results that are represented in figures from research studies are genuine, accurate, generalisable and precise because researchers are always objective. Creswell (1994) asserted that the goal of every quantitative research is to come up with generalizations from findings that contribute to the theory and as well help the researcher to predict, explain and understand some phenomena. The use of quantitative research design ensures high levels of reliability of data (Matveev 2002). Also, it helps to state the research problem in specific and set terms (Cohen *et al.*, 2004).

3.2 Research Approach

In conducting this study, the survey approach was used. Wimmer and Dominick (2011) define survey research as a systematic way of asking a study population to willingly volunteer information about their attitudes, behaviours, opinions and beliefs concerning a topic under study. Survey serves as a rightful means of gathering information under three important conditions.

The first condition is when the objectives of the study require both quantitative and qualitative data. The second is when the information sought for the study is specific and familiar to the respondents in that they may be so used to the issue under study and the last is when the researcher has preconceived knowledge of the responses that are likely to emerge from the study.

These conditions guided the researcher to choose survey as the appropriate approach to conduct studies such as evaluation of public communication campaigns from the audience perspective.

According to Babbie (2008), survey is the perfect method to use when researchers are interested in measuring attitudes and orientations among large populations. This assertion relates to the present study which sought to evaluate a public campaign. On the basis of evaluation, this study sought to investigate the responses of the people of Madina to the NSD campaign. This included questions on the attitudes of the people towards the campaign; to find out residents' levels of awareness and knowledge of the campaign and also if the campaign had caused any behaviour change. Surveys are usually used in areas with highly populated density where the whole population cannot be studied (Donkor, 2013). Therefore, in this present study conducted in Madina, the survey method was considered as the most suitable method since not all residents could be studied. Also, survey is the appropriate method to use when a researcher is interested in collecting data and analyzing different variables such as awareness/knowledge, perceptions, attitudes and demographics.

3.3 Population, Sampling Technique, sampling procedure and Sample Size

3.3.1 Population

Wimmer and Dominick (2011) define a population as a group of class of subjects, variables, concepts or phenomena. This suggests that population in a research study involves group of individuals and ideas which are in the interest of the researcher. They may share similar characteristics or may be at the same location or the study area.

According to Burns and Grove (2001), a population comprises all the elements that meet certain criteria for inclusion in a study. Therefore, a population deals with entity of individuals in a defined location with certain common characteristics.

For the purpose of this study, the population constituted all residents of Madina. Madina is one of the suburbs in the La Nkwantanang district in Greater-Accra region. Demographically, Madina is composed of males, females, young, old, literates and illiterates. The population of Madina is estimated to be 137,162 as of 2012; so the study population involved all residents.

Madina was chosen for this study because it is one of the biggest suburbs in the La Nkwantanang district which is very close to University of Ghana, where the researcher is pursuing an academic career. Also, there is population diversity in terms of education, age, occupation, culture, ethnic and religious groups, which will provide a representative result that can be generalized.

3.3.2 Sampling Technique

For a researcher to conduct a study within a stipulated period there is the need to sample from the entire population of the study area. Sampling is an important factor considered in a research process.

Wimmer and Dominick (2011) define sampling as the process of selecting some elements from an entire population for a study. Therefore a sample is the subset of the population that is representative of the entire population. Through the sampling process, the specific elements with similar characteristics are selected, represented and generalized in a study.

According to Wimmer and Dominick (2011), whenever a sample is drawn from a population, researchers need a way to estimate the degree to which the sample differs from the population. There are two ways of sampling: probability and non-probability.

Probability sampling method follows guidelines from which each element has equal chance of being selected whereas non-probability sampling does not follow any guidelines which give equal chance to elements to be selected. Since this study undertook the survey approach, probability sampling method was considered appropriate.

According to Babbie (2008), probability sampling methods are the best in survey research. Probability sampling methods give equal chance to all elements in terms of selection and also when precise, accurate and statistical descriptions of large populations are needed by the researcher, the probability methods are employed. It is considered as an effective method for selecting elements for study which helps to avoid biases and permits estimates of sampling errors. Examples of probability sampling methods are simple random, systematic, stratified and multistage cluster.

For the purpose of this study, the cluster, stratified and systematic sampling methods were all used to draw 200 respondents from the population in the ten sub areas in Madina.

Madina has a population of 137,162 and due to that ,most residents live in different sub areas within the big community. Based on its large nature, the sub areas where most of the residents live were put into clusters. Through this process the different commonly named areas Firestone,

Point 5, Hanna Junction, Masalachi, Taxi Rank, Post Office, Market Square, Zongo, UN and Libya quarters were used as the clusters.

According to Babbie (2008, p. 231) cluster sampling is: “A multistage sampling in which natural groups (clusters) are sampled initially, with the members of each selected cluster being sub sampled afterward.” Thus, for the purpose of this study, the cluster sampling was the first sampling stage.

The systematic method beginning with a random start was the next sampling process employed in this study. Systematic sampling occurs when every n th unit in the list is selected for inclusion in the sample (Babbie, 2008; Wimmer & Dominick, 2011).

The final step was the stratified sampling which was used to select the male-female order respondents for the study. Stratified sampling is a way of grouping the entire population into homogenous units or strata and from which the sample is drawn (Wimmer & Dominick, 2011; Babbie, 2008). Within each cluster, the elements were put into strata thus: males and females.

3.3.3 Sampling Procedure

For this study, 20 houses were sampled in each of the ten (10) clusters so with a sampling interval of three (3) every third house was chosen after a random starting point. Out of the 20 houses in each cluster, 20 respondents who fell within the age categories were selected for the study. Using the stratified method the male –female order was also used in selecting the respondents. Thus with the random start, a male was interviewed first, then the next respondent was a female. This order was used till the expected respondents were drawn from each area to get the 200 respondents for the study.

Sequentially, the male – female order was used to select respondents throughout the process and this was done in all ten clusters. However, in some houses that were sampled for the study, the male – female order was not applicable because males were substituted for females and vice versa.

3.3.4 Sample Size

To make the study representative enough, eleven (11) percent, representing 150 respondents was drawn from the estimated population, 137,162, of Madina. However, due to some field work challenges like unqualified respondents and missing questionnaires that were presumed, the researcher used her own discretion to select an additional of fifty (50) respondents. Thus, a total sample size of 200 was used for this study.

The 200 respondents constituted twenty (20) respondents sampled from each of the ten clusters in the community. This sample was made up of both male and female between the ages of 13-70 and above. The researcher also considered both literates of any educational qualification as well as illiterates. Individuals who fell within these categories and were available during the sampling process were selected for the study.

3.4 Data collection method and instrument

The researcher conducted a survey using structured questionnaire as the instrument for collecting data. Questionnaire is considered as the most appropriate instrument in conducting surveys. Babbie (2008) defines questionnaire as a document which contains a set of questions and other items used to ask for information suitable for analysis in research studies.

According to Wimmer & Dominick (2011), a questionnaire design must reflect the purpose of the research or project. This helps the researcher to get the appropriate information or data for the research.

There are two ways of formulating questions in a survey research and they are the open ended and closed ended questions. Open ended questions allow respondents to give their own answers whereas closed ended questions do not give respondents the opportunity to provide their own answers. For this current study, the closed ended question format was used to formulate the questions.

The questions were categorized under four broad areas considering knowledge/awareness, perception, sources of information, behaviour change and demographics. The interviewer administered questionnaire approach was used in getting answers to the questions. Thus, the researcher asked respondents questions that were set for the study. Though items on the questionnaire were written in English, the Twi language was sometimes used to ask and answer questions.

3.5 Data Analyses

The data collected for this study was analyzed quantitatively. Analysis of data always brings to bare the findings or results from research projects.

According to Babbie (2008, p. 443), a quantitative analysis is the numerical representation and manipulation of observations for the purpose of describing and explaining the phenomena that those observations reflect.”

This implies that the outcome of the data is represented in figures in the findings which make it representative enough to be generalised.

In the first step, the various responses were given codes which were entered into a database. Secondly, the data was analysed using the Statistical Package for Social Sciences (SPSS). The responses to the questions were classified based on the objectives of this study. For questions with the Yes, No and Not Sure or don't know options, Yes was coded as one (1), No as two (2) and Not Sure or Don't know as three (3). Questions without the above stated options were also coded by using 1, 2, 3, 4 and 5. This was also applied to the questions with strongly agree, agree, neutral, strongly disagree and the disagree options; strongly agree was coded as 1, agree as 2, Don't know/not sure as 3, strongly disagree as 4 and disagree as 5. Frequency distributions of all the responses were represented with pie charts and tables.

3.6 Chapter summary

This chapter focused on the research design, population, sampling technique, sampling procedure and sample size. It described the quantitative approach to research and also explained the survey method which used the questionnaire as an instrument to measure responses from the residents of Madina. It also outlined the data collection method and instrument (questionnaire) and the data analysis process. The next chapter reveals the findings of this study.

CHAPTER FOUR

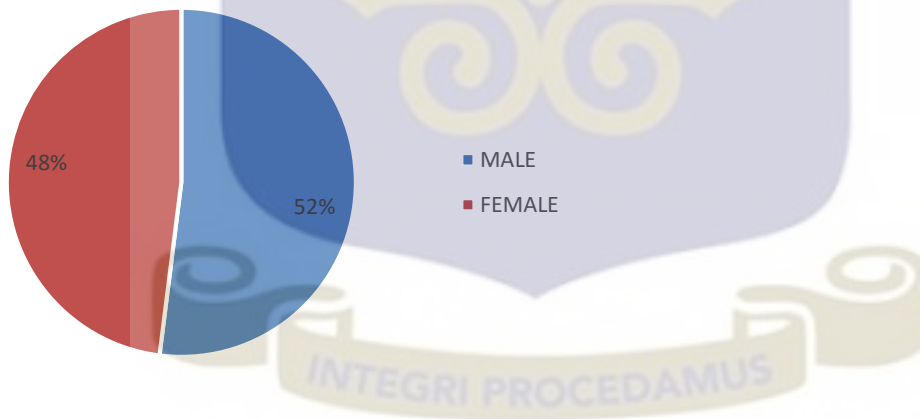
FINDINGS AND ANALYSES

4.0 Introduction

This chapter presents the findings that are in line with research questions of the study. It gives a detailed report of the findings from the questionnaires administered. A total of 200 questionnaires were interviewer-administered by the researcher and all questionnaires were filled in Madina. Respondents were comfortable with all questions and so all were answered. However, none of the respondents provided answers to questions where “other” was stated. The outcome of the study is summarized in a series of tables and figures shown below.

4.1 Findings and analyses

Figure 1: Gender distribution of respondents



Based on the 200 respondents that were sampled for the study, the male were 104 representing 52 percent whilst 96, representing 48 percent of respondents were female. This is indicated in Figure 1 above. This implies that a slim majority of the respondents from the ten clusters in Madina were male. This gender data could be relevant to campaign evaluators/researchers about the responsiveness of males and females to survey enquiries.

Table 1 : Age of Respondents

Age categories	Frequency	Percent
13-17	23	11.5
18-25	63	31.5
26-35	44	22.0
36-45	28	14.0
46-70	29	14.5
ABOVE 70	13	6.5
Total	200	100.0

The findings suggest that majority of the respondents (32 percent) fell within the 18-25 age group, 22 percent of them were within the 26-35 age group, and close to 15 percent (14.5%) were in the 46-70 age group. Also, 14 percent of respondents fell within the 36-45 age group, 11.5 percent fell within 13-17 age group and 6.5 percent of the respondents were 70 and above years of age. This age category data would be important to campaign planners and implementers to know the type of campaign message and media to address different age clusters in the community.

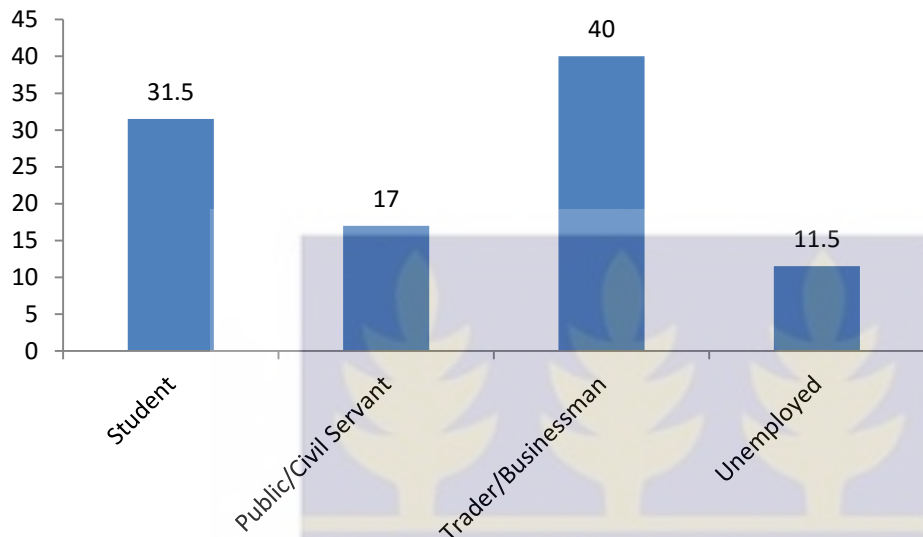
Table 2: Level of Education

Level of Education	Frequency	Percent
Primary-JHS	59	29.5
SHS	65	32.5
Vocational	19	9.5
Tertiary	37	18.5
No Formal Education	20	10.0
Total	200	100.0

Per the findings, about 33 percent of the respondents had had Senior High School education. One in three (29.5%) of them had Primary-JHS education and close to one in five (18.5%) had tertiary education. Respondents with vocational level of education were 19 (9.5%) and on the

other hand, 10 percent had no formal education. This shows that majority of the respondents had had formal education.

Figure 2: Occupation of Respondents



From Figure 2, 40 percent of the respondents were traders/businessmen, another 31.5 percent of the respondents were students, 17 percent were public/civil/professional servants and 11.5 percent of them were unemployed. Generally, majority of the respondents were traders or students. Using the survey and the various sampling techniques, this data suggests that most of the respondents are traders/businessmen.

Table 3: Year Respondents first heard of the Campaign

Year	Frequency	Percent
2007	13	6.5
2014	130	65.0
2015	57	28.5
Total	200	100.0

All the respondents have heard of the National Sanitation Day campaign. Based on the year they first heard of the campaign, it is observed from the findings that, more than six out of 10 of the respondents (65.0%) first heard of the campaign in 2014, less than three out of ten (28.5%) heard it in 2015 and less than one of the respondents heard it in 2007. This shows that majority of

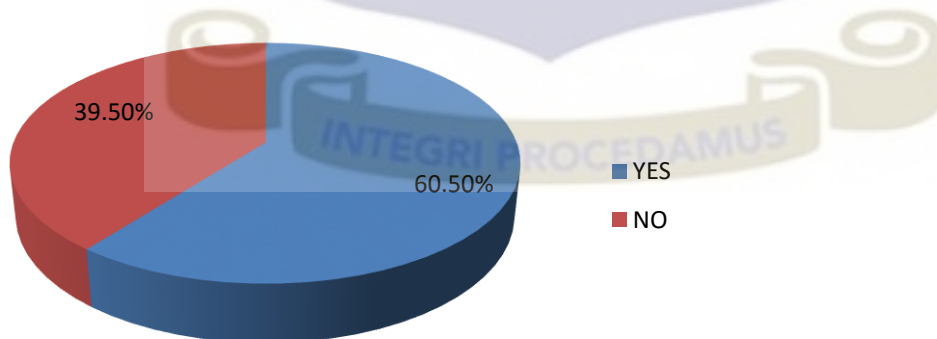
respondents heard of the campaign in 2014 and this is because the campaign was rekindled in that year.

Table 4: Key Campaign Message requirement

Message	Frequency	Percent
To Clean Up Surroundings	185	92.5
To Not Litter	11	5.5
To Report/Correct Those Who Litter	2	1.0
Not Sure/Don't Remember	2	1.0
Total	200	100.0

Respondents were asked to indicate what they knew to be the key message of the campaign and almost 93 percent of respondents said the campaign message was about cleaning their surroundings, almost 6 percent of the respondents recalled that the campaign message was not to litter, one percent of them said the message was to report/correct those who litter and also one percent of the respondents were not sure or did not remember the campaign message.

Figure 3: Participation in Sanitation Exercise as a result of the Campaign



In order to know whether respondents were participating in any sanitation exercise in response to having heard the campaign, they were asked the question: Have you participated in the sanitation

exercise before? 60.5% (3/4) of the respondents said they had participated in the sanitation exercise. However, 39.5 % (4/10) of the respondents said they had not participated in the exercise before.

Table 5: Number of Times Respondents participated in the Exercise

Number of participating	Frequency	Percent
1-3	52	42.3
4-6	18	14.6
7-9	21	17.1
Never Missed Any	32	26.0
Total	123	100.0

The 123 respondents who indicated that they had participated in the sanitation exercise were asked to indicate the number of times they had participated in the exercise. As observed from Table 5, 42.3 percent of respondents had participated in the exercise about 1-3 times, 26 percent of the respondents had never missed any. Also, 17.1 percent had participated 7-9 times and almost 15 percent had participated 4-6 times.

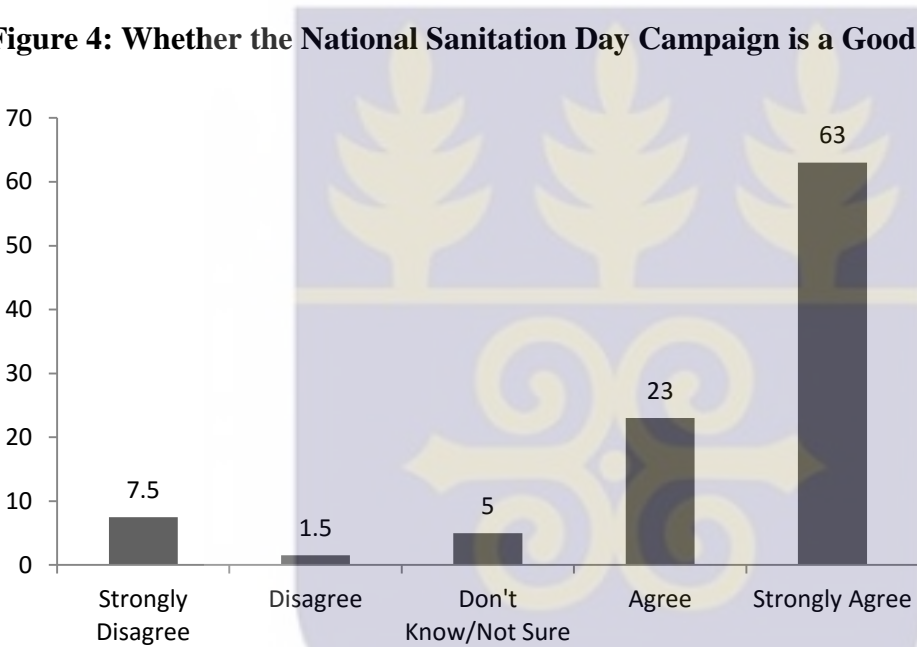
Table 6: Reasons for not participating in the exercise

Reasons	Frequency	Percent
Not Convinced About The Message	3	3.8
Not Sure The Exercise Will Be Sustainable	6	7.6
It Is Not My Personal Responsibility	3	3.8
Not Had The Time/Opportunity	42	53.2
My Choice/It Is Not By Force	9	11.4
No Particular Reason	16	20.3
Total	79	100.0

Respondents who had not participated in the exercise before gave the following reasons as to why they did not participate. The majority (53.2%) of the respondents said they did not have the

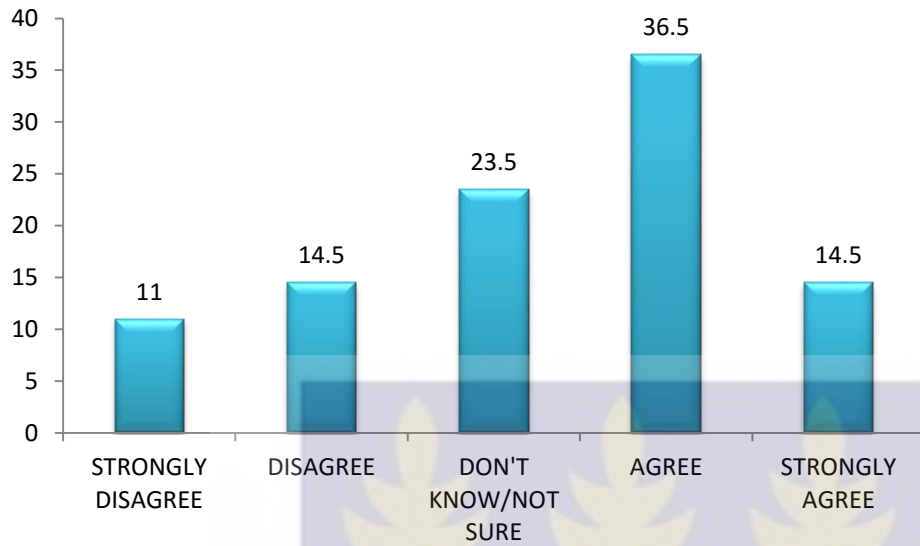
time/opportunity; 20.3 percent of the respondents did not have any particular reason for not participating, 11.4 percent indicated that they did not feel obliged. Almost 8 percent (7.6%) said they were not sure the exercise will be sustainable and almost 4 percent (3.8%) said they were not convinced about the message and a similar number said it was not their personal responsibility.

Figure 4: Whether the National Sanitation Day Campaign is a Good Initiative



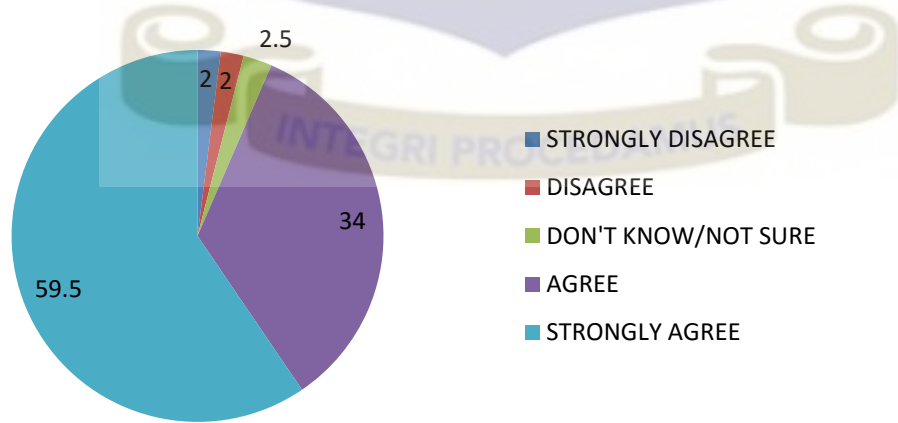
In order to find out whether the National Sanitation Day campaign is a good initiative, respondents were asked to indicate their thoughts on the scale. It is seen from Figure 4 that 63 percent of the respondents strongly agreed that the NSD exercise was a good initiative by the Government and 23 percent agreed. Close to 8 percent (7.5%) strongly disagreed that is a good initiative, 5 percent said they did not know or were not sure and almost 2 percent of the respondents disagreed. This finding shows that majority of the respondents thought the campaign exercise had positive effects in their lives.

Figure 5: Whether the Campaign has been Successful



To measure the success of the NSD campaign, respondents were asked to indicate on a Likert scale the extent to which they agree to the statement that the campaign had been successful. Almost 37 percent of the respondents agreed that the campaign had been successful in Madina. Close to 15 percent strongly agreed and 24 percent were not sure or did not know if it had been successful. On the other hand, 14.5 percent disagreed and 11.0 percent strongly disagreed that the campaign was a success.

Figure 6: Whether the Campaign should be maintained



Nearly 3 in 5(59.5%) of the respondents strongly agreed that the campaign should be maintained and 34 percent agreed. On the other hand, 2.5 percent did not know whether the campaign should be maintained or not, 2 percent strongly disagreed and another 2 percent disagreed with the maintenance of the program and 2.5 percent were not sure whether the campaign should be maintained or not. Since most of the respondents perceived the outcome of this behaviour to be positive, they thought that maintaining the campaign exercise would help achieve the given behaviour.

Table 7: The Campaign will help eradicate diseases such as Cholera and Malaria

Response	Frequency	Percent
STRONGLY DISAGREE	2	1.0
DISAGREE	2	1.0
DON'T KNOW/NOT SURE	7	3.5
AGREE	62	31.0
STRONGLY AGREE	127	63.5
Total	200	100.0

On whether the campaign will help eradicate diseases such as cholera and malaria, it was observed that 63.5 percent strongly agreed and 31.0 percent agreed. Less than 2 percent of respondents cumulatively disagreed and strongly disagreed that the campaign will help eradicate diseases such as cholera and malaria. More than 90 percent of respondents cumulatively agreed.

Table 8: Clarity and Simplicity of the Campaign message

Response	Frequency	Percent
Strongly Disagree	1	.5
Disagree	5	2.5
Don't Know/Not Sure	21	10.5
Agree	122	61.0
Strongly Agree	51	25.5
Total	200	100.0

Asked about the simplicity and clarity of the campaign message, it is observed that 61 percent of the respondents agreed that the message is simple and clear, a little over a quarter (25.5%) strongly agreed and 10.5 percent neither agreed nor disagreed. On the contrary, only 2.5 percent disagreed and 0.5 percent strongly disagreed. More than 70 percent of respondents agreed or strongly agreed to the statement that NSD campaign message was clear and simple.

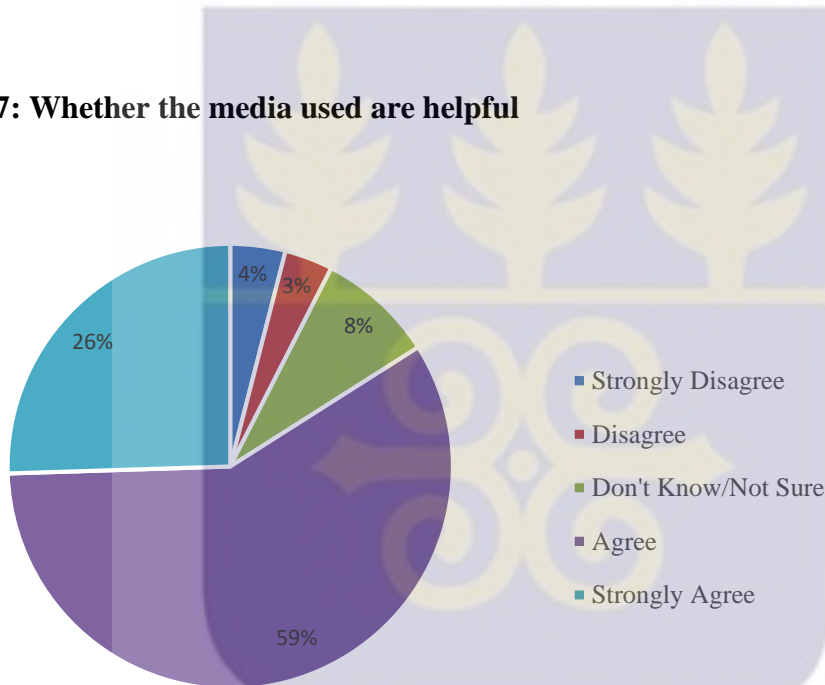
Table 9: Residents are motivated to fully participate in the campaign exercise through the provision of logistics such as litter bins and the removal of waste once it has been collected

Response	Frequency	Percent
STRONGLY DISAGREE	29	14.5
DISAGREE	15	7.5
DON'T KNOW/NOT SURE	52	26.0
AGREE	55	27.5
STRONGLY AGREE	49	24.5
Total	200	100.0

The findings show that 27.5 percent agreed that residents were motivated to fully participate in the campaign through the provision of logistics such as litter bins and the removal of waste once

it has been collected and 24.5 percent strongly disagreed to the statement. The findings also show that 14.5 percent strongly disagreed and 7.5 percent disagreed. More so, 26 percent they did not know whether residents were motivated. It would appear that respondents were motivated to participate in the campaign recommendation because they perceived the outcome to be positive as the theory of planned behaviour would suggest.

Figure 7: Whether the media used are helpful



In order to find out whether the media used in the NSD campaign were considered helpful, respondents were asked to indicate the degree of their support for or endorsement of those media on a five point scale. It is observed that close to 3 in 5 (58.5%) of the respondents agreed that the media used in the campaign are helpful and a little more than a quarter (25.5%) also strongly agreed to the statement. On the other hand, only 4 percent strongly disagreed, 3.5 percent disagreed and 8.5 percent neither agreed nor disagreed with whether the media used in campaigning were helpful or not. The response from this majority explains that the various

media used should be maintained and be used effectively and intensively to disseminate campaign messages regarding proper sanitation practice.

Table 10: Whether Bye-Laws will ensure Proper Sanitation Practice

Response	Frequency	Percent
Strongly Disagree	7	3.5
Disagree	5	2.5
Don't Know/Not Sure	16	8.0
Agree	73	36.5
Strongly Agree	99	49.5
Total	200	100.0

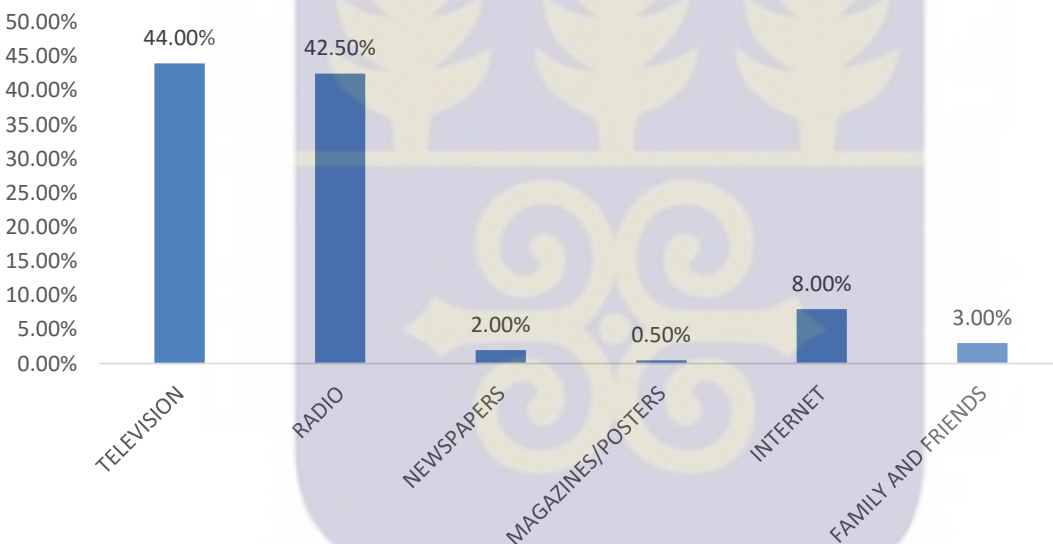
The findings show that close to half (49.5%) of the respondents strongly agreed to the statement that bye-laws will ensure proper sanitation practice in the area, and 36.5 percent of the respondents also agreed that bye-laws will ensure proper sanitation in the area. On the contrary, 3.5 percent strongly disagreed and 2.5 percent disagreed that bye-laws will ensure proper sanitation practice in this area.

Table 11: Through which means do you receive information in general

Media	Responses		Percent of Cases
	N	Percent	
TELEVISION	190	29.1%	95.0%
RADIO	187	28.7%	93.5%
NEWSPAPERS	43	6.6%	21.5%
MAGAZINES/POSTERS	41	6.3%	20.5%
INTERNET	70	10.7%	35.0%
FAMILY AND FRIENDS	121	18.6%	60.5%
Total	652	100.0%	326.0%

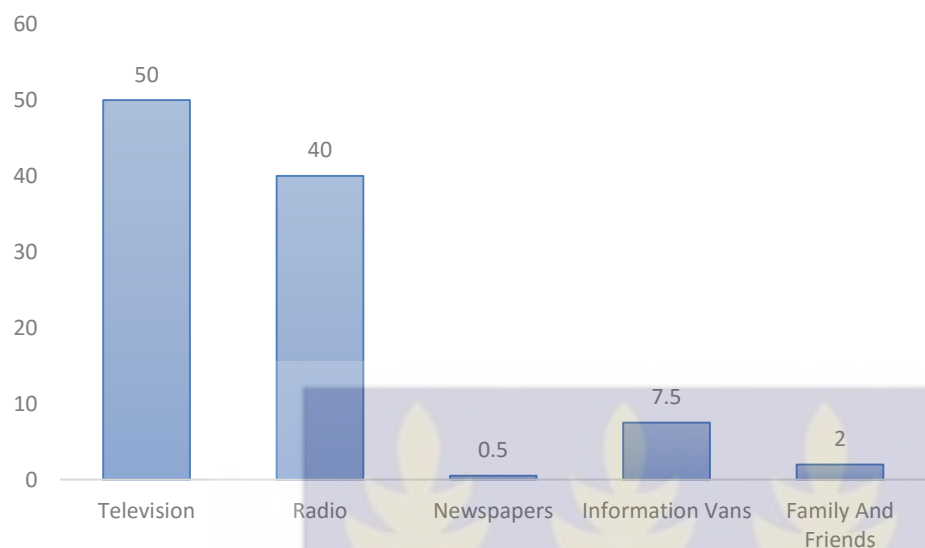
The findings show that the media through which most of the respondents received information in general were television (29.1%) and radio (28.7%). Other sources were family and friends (18.6%), internet (10.7%), magazines/posters (6.3%) and newspapers (6.6%). Television and radio were the mostly used media by majority of respondents. This may be due to the fact that these gadgets are affordable and easily accessible or due to the multiplicity of available radio and television stations the diversity of local languages used in broadcasting.

Figure 8: Most Preferred Means of Getting Information In General



Based on the logic that the most used media may not necessarily be the preferred media, respondents were asked to indicate their preferred media for general information. Television and radio still were the most preferred means of getting information as observed from the findings from Figure 9 above. More than 2 in 5 (44.0%) of respondents said television was the most preferred means of getting information whereas another 2 in 5 (42.5%) said radio was their most preferred means of getting information. Other least preferred means of getting information in general were internet (8.0%), family and friends (3.0%), newspapers (2.0%) and less than 1 percent (0.5%) preferred magazines.

Figure 9: Medium from which respondents first heard of the National Sanitation Day



Half (50.0%) of the respondents mentioned television as the medium through which they first heard of the NSD campaign, 40.0 percent of the respondents said Radio, 7.5 percent said information van, 2.0 percent said family and friends and less than one percent (0.5%) said newspapers.

Table 12: Medium that best gives Information on the Campaign

Medium	Frequency	Percent
Television	68	34.0
Radio	70	35.0
Information Vans	60	30.0
Family And Friends	2	1.0
Total	200	100.0

The findings show that more than one-third (35.0%) of respondents said that the medium that best gives information on the campaign was radio. Another one third more than (34.0%) of the respondents said television best gives information on the campaign and 30 percent of the respondents said the Information Van best gives information on the National Sanitation Day campaign.

Table 13: Level of Information received on the Campaign

Amount	Frequency	Percent
More Than Enough Information	85	42.5
Just About Enough Information	75	37.5
Less Than Enough Information	40	20.0
Total	200	100.0

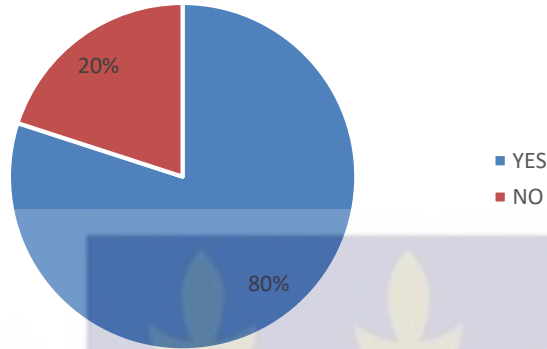
From table 13, the finding shows that 42.5 percent of respondents said that the level of information they have received on the campaign was more than enough, 37.5 percent said the information is just about enough and 20 percent said the level of information they have received on the campaign is less enough.

Table 14: Timeliness of Information given on the Campaign

Time	Frequency	Percent
Not At All Timely	46	23.0
Not Sure/Don't Know	68	34.0
Very Timely	86	43.0
Total	200	100.0

The findings show that, 43 percent of the respondents said the information given on the campaign is very timely, more than a third (34.0%) were not sure whether the information was timely or not and 23 percent of the respondents said the information was not at all timely. In order for a behaviour change to take place, the time frame is considered.

Figure 10 : Whether NSD campaign has made Respondents more aware



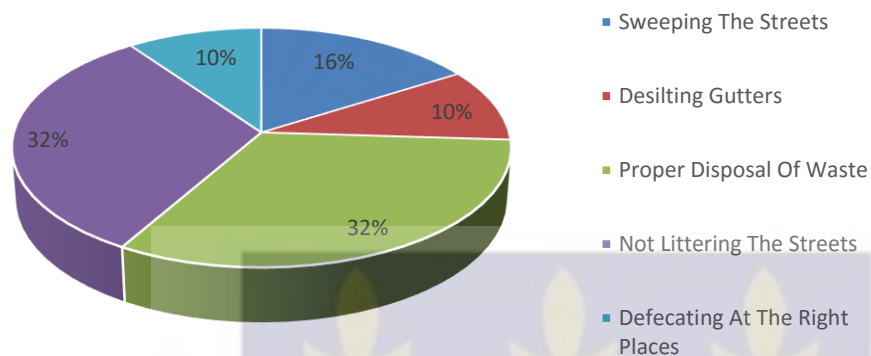
The finding shows that, 80.0 percent of the respondents said yes the campaign had made them more aware of something they didn't know before and 20 percent said the campaign had not made them aware of anything new.

Table 15: Action taken after hearing the Campaign message

Action taken	Frequency	Percent
Changed My Attitude(Proper Sanitation Practice)	101	50.5
Changed My Attitude And Educated Others(Proper Sanitation Practice)	65	32.5
No Change	34	17.0
Total	200	100.0

The findings show that 50.5 percent of the respondents changed their attitude towards proper sanitation practice after hearing of the campaign. Close to a third (32.5%) of the respondents not only changed their attitude but also educated others about proper sanitation practice and less than 20 percent (17.0%) did not feel the need for any change.

Figure 11: Managing Sanitation Conditions after Hearing the Campaign Message



The findings from figure 12 show that respondents changed their attitude in managing sanitation conditions after hearing the NSD campaign message. It is observed that, close to a third (32.4%) had learnt about proper disposal of waste after hearing the campaign. 31.8 percent had stopped littering the streets and 16.1 percent swept the streets after hearing the campaign message. Also, 9.9 percent had learnt about desilting gutters and a similar number, 9.9 percent said they were defecating at the right places.

The findings show that close to two in three (65.2%) of respondents between the ages 13 to 17 preferred television as a means of getting information, 13.0 percent preferred radio and another 13.0 percent preferred the internet. Less than 5 percent of the respondents between 13 and 17 years preferred newspaper (4.3%) and a similar number preferred family and friends (4.3%). Of those between the ages 18 to 25, 42.9 preferred television, 41.3 percent preferred radio and 7.9 percent preferred internet. For respondents between the ages 26 to 35 years, 54.5 percent preferred radio and 38.6 percent preferred television.

Table 16: Age By most preferred means of getting Information

Age	Which one of the options is your most preferred means of getting information in general?						Total
	Television	Radio	Newspapers	Magazines/ Posters	Internet	Family And Friends	
13-17	15 65.2%	3 13.0%	1 4.3%	0 0.0%	3 13.0%	1 4.3%	23 100.0%
18-25	27 42.9%	26 41.3%	1 1.6%	1 1.6%	5 7.9%	3 4.8%	63 100.0%
26-35	17 38.6%	24 54.5%	0 0.0%	0 0.0%	3 6.8%	0 0.0%	44 100.0%
36-45	12 42.9%	14 50.0%	1 3.6%	0 0.0%	1 3.6%	0 0.0%	28 100.0%
46-70	13 44.8%	12 41.4%	1 3.4%	0 0.0%	2 6.9%	1 3.4%	29 100.0%
ABOVE 70	4 30.8%	6 46.2%	0 0.0%	0 0.0%	2 15.4%	1 7.7%	13 100.0%
Total	88 44.0%	85 42.5%	4 2.0%	1 0.5%	16 8.0%	6 3.0%	200 100.0%

For respondents between the ages 36 to 45 half (50.0%) of them said radio and 42.9 percent said television. Out of the respondents, 44.8 percent of them between the ages 46 and 70 said television and 41.4 percent said Radio. For respondents above 70 years, 46.2 percent said radio and 30.8 percent said they preferred television. Majority of respondents between the ages 13 to 25 and 46 to 70 preferred television as their means of getting information and respondents between the ages of 36 to 45 and above 70 years preferred radio as their means of information.

Table 17: Education by medium of first hearing of NSD campaign

Level of Education	Through which medium did you first hear of the national sanitation day campaign?					Total
	TELEVISION	RADIO	NEWSPAPERS	INFORMATION VANS	FAMILY AND FRIENDS	
PRIMARY-JHS	26 44.1%	24 40.7%	0 0.0%	6 10.2%	3 5.1%	59 100.0%
SHS	44 67.7%	19 29.2%	0 0.0%	2 3.1%	0 0.0%	65 100.0%
VOCATIONAL	7 36.8%	10 52.6%	0 0.0%	2 10.5%	0 0.0%	19 100.0%
TERTIARY	22 59.5%	10 27.0%	0 0.0%	4 10.8%	1 2.7%	37 100.0%
NO FORMAL EDUCATION	1 5.0%	17 85.0%	0 0.0%	1 5.0%	1 5.0%	20 100.0%
Total	100 50.0%	80 40.0%	0 0.0%	15 7.5%	5 2.5%	200 100.0%

The findings show that more than two in every five (44.5%) of respondents with primary level of education said they heard of NSD on television and close to 41 percent heard on radio. Also, 10.2 percent heard about it through the information van and 5.1 percent said family and friends. Of the SHS respondents close to more than two thirds (67.7%) said television while on the other hand less than one-third (29.2%) said radio. For vocational respondents, 52.65 percent said radio 36.8 percent said television. Of respondents with tertiary level of education, 59.5 percent said

television and 27.0 percent said radio. Also, 10.5 percent said they got the message through information vans, 85 percent of respondents with no formal education said they heard about the NSD campaign through the radio and 5.0 percent each knew about it through television and information van. With the exception of respondents with vocational level of education, majority of primary, SHS and tertiary level of education respondents heard the NSD campaign on television. On the other hand, the great majority of respondents with no formal education heard it on radio.

4.2 Chapter summary

This chapter presented the findings obtained for this study through the survey of 200 residents of Madina in Accra. The data obtained was analysed using SPSS where findings were represented in tables and charts. The survey revealed the following major findings from the research: respondents had high levels of awareness/knowledge of the campaign; their major sources of information on the campaign were television and radio; they were satisfied with the level of information they had received on the campaign; most of the respondents perceived the campaign to be a good initiative by the government; respondents considered the enforcement of bye-laws to be essential success of the campaign; the campaign had had a positive effect on the behaviour of respondents regarding proper sanitation practice. The next chapter outlines the discussion of the findings, conclusion and recommendation.

CHAPTER FIVE

DISCUSSION OF FINDINGS, CONCLUSION AND RECOMMENDATION

5.0 Introduction

The study was undertaken to know how residents of Madina were responding to the National Sanitation Day campaign. This chapter deals with the discussion of the findings presented in chapter four with particular reference to the research questions that were set for the study. The results are discussed on the basis of the research objectives underlining the study, the literature that was reviewed and the theories that underpinned the study. This chapter also deals with the conclusion and recommendation.

5.1 Discussion of findings

In order to make the assessment of the results meaningful, the research objectives and questions set out for this study were revisited. The first objective was to determine whether residents of Madina were aware/knew of the National Sanitation Day Campaign. The second objective was to find out how residents perceived the campaign. Thirdly, this study sought to find out residents' main sources of information on the campaign. The final objective was to find out if the campaign had caused any behaviour change among the residents.

To be able to achieve the research objectives, four research questions were developed to guide the formulation of specific questioning route of the survey questions. Firstly, the levels of awareness/knowledge of Madina residents of the National Sanitation Day campaign were measured. Secondly, questions were asked on how respondents perceived the campaign. Thirdly,

respondents were asked of their main sources of receiving information generally and about sanitation campaign in particular. Finally, questions were asked to know if the campaign had effected any change in respondents' behavior.

Research Question 1: What are the levels of awareness/knowledge of Madina Residents on the campaign?

In measuring the levels of awareness/knowledge of Madina Residents on the campaign, the first question was 'Have You heard of the National Sanitation Day Campaign' and this was a screener question used to select respondents. The questionnaires were posed to only those identified through the sampling process described in chapter 3. All those who responded yes were selected for the study.

Table 3, Table 4, Table 5, Table 6 and Figure 3 illustrated the awareness/knowledge levels of the residents of Madina on the National Sanitation Day campaign. Table 3 illustrates that 65 percent of the respondents heard of the NSD campaign in the year 2014. This percentage is not surprising because the Ministry of Local Government and Rural Development (MLGRD) reinforced the National Sanitation Day campaign in 2014 and 2015. This explains that, generally, all respondents regardless of gender, age, educational or socio-economic background, were aware and also had knowledge of the campaign and its message. This explains why majority of the respondents were able to recall the campaign message. This affirms that awareness on the campaign had successfully been created in the study area and residents had knowledge about it.

It was also found that majority of the residents, representing 60.5 percent, had participated in the National Sanitation exercise. Regarding the number of times in participating in the exercise, majority of them (42%) said they had done it 1 to 3 times whereas 26 per cent of the respondents said they had not missed any since the campaign initiation. Reasons given by respondents who had not participated in the exercise were that: they had not had time/opportunity, they had no particular reason, they were not obliged, and they were not sure the exercise will be sustainable, or that it was not their personal responsibility. Some were also not convinced about the message.

In respect to Rice and Atkin's (2013) definition of public communication campaign, the NSD campaign with the purpose of sensitizing people on how to manage sanitation issues, had informed and persuaded residents to partake in the exercise through mass media and interpersonal means of communication.

These findings on the levels of awareness/knowledge of residents of the National Sanitation Day campaign reinforce the findings in the previous studies conducted by Wouter *et al* (2011), Huhman *et al* (2005), Staats *et al* (1996), Beaudoin *et al* (2007), Hornik *et al* (2008), Hafstad and Aaro (1997) and Idamah (2015) discussed earlier in chapter two. These studies found that majority of respondents had high levels of awareness/knowledge of the various campaigns that were evaluated. These findings are however in contrast to the finding of Deurenberg-Yap (2005), which suggested that the respondents' levels of knowledge/awareness on the educational campaign on SARS outbreak were low.

Research question 2: What perception do residents have of the campaign?

The second objective of the study was to find out how residents perceived the campaign. This objective was tied to the research question as to what perceptions the residents had of the NSD campaign.

Figure 4, Figure 5, Figure 6, Figure 7, Table 7, Table 8, Table 9 and Table 10 represent the findings that collectively helped to respond to question two.

Figure 4 illustrates that a greater number of the respondents (63%) strongly agreed that the NSD campaign was a good initiative by the government, 23% of respondents agreed, 5% did not know/were not sure, 1.5% of the respondents disagreed and 7.5% strongly disagreed to this statement. This implies that majority of the respondents perceived the campaign to be a good one from the government. In respect to the theory of reasoned action (Ajzen & Fisbein, 1980), the residents had the belief that the campaign would contribute positively to the management of sanitation issues. Therefore, the belief the respondents' had in this campaign may have influenced their intentions to perform the desired behaviour (proper sanitation practice).

Figure 5 also illustrates the success of the campaign exercise in Madina. Thirty-six point five (36.5) percent of the respondents agreed that the campaign exercise has been successful in the sub-areas in Madina. Twenty-three point five (23.5) percent of the respondents did not know/were not sure whether the campaign exercise had been successful because some of them never participated in the exercise at their areas of residence. Fourteen point five (14.5) percent of respondents also disagreed and 11 percent strongly disagreed with the conclusion that the campaign exercise had been successful. This finding agrees with the finding that the radon

awareness and testing campaign was effective and successful in Wales and England as discussed in chapter two (Wouter *et al*, 2011).

Figure 6 shows residents' perception on the maintenance of the campaign. It was found that 59.5% strongly agreed that the campaign should be maintained, 34% of them agreed to it, 2.5% did not know whether it should be maintained, 2% disagreed and 2% strongly disagreed to the campaign's maintenance. Most of the respondents who strongly agreed to this statement had positive attitude towards the given behaviour through the campaign.

Table 7 shows that most of the respondents (61%) agreed that the campaign message was simple and easy to understand. Twenty-five point five (25.5) percent of the respondents strongly agreed that the message was simple and easy to understand. This explains why most of respondents participated in the campaign exercise. However, 10.5% of the respondents did not know or were not sure whether the message was simple and clear, 2.5% disagreed and 1% strongly disagreed to the statement.

Further findings that relate to this research question showed that 59% of the respondents strongly agreed that the various media used in campaigning were useful, 26% agreed, 8% did not know whether the media have been helpful, 3% disagreed and 4% strongly disagreed. The positive response from the large part of the respondents depicts that they are well informed on the campaign. Also, 49.5% of the respondents strongly agreed that bye-laws will ensure proper sanitation practice in Madina. More so, 36.5% of them agreed, 8% of them were not sure, 2.5% disagreed and 3.5% strongly disagreed. This means that because no laws have been enforced in the campaign exercise, some respondents did not participate in the exercise. This could mean

that the non-existence of law enforcement in the exercise may have not influenced their attitude as a way of affecting their intentions to perform the desired behaviour.

Research Question 3: What are the main sources of information on the NSD campaign?

Figure 8, Figure 9, Table 11, Table 12, Table 13, Table 15 and Table 16 illustrate the findings for question three. In figure 8, respondents were asked to choose their most preferred means of receiving information in general. Television and radio (mass media) representing 29.10% and 28.70% of respondents respectively, were found to be the major sources through which most of respondents received information on events and activities in general. However, family and friends (18.6% of the respondents) as an interpersonal form of receiving information was also used. Also, 10.70% of them used internet, 6.60% of them used newspapers and 6.30% of them used magazines/posters. Television and radio are commonly used by many because of the different channels and stations and also the diversity in languages that are used to broadcast news.

Figure 8 illustrates the most preferred medium of getting information. Considering the finding discussed above, obviously most of the respondents preferred to use television and radio than the other sources. Apart from television and radio, internet, family and friends, newspapers and magazines/posters were also preferred by other respondents.

Figure 9 also shows that majority of the respondents received information on National Sanitation Day from television and radio as their major sources. Thus, these mass media are highly useful in awareness creation of public communication campaigns such as NSD. Also, the information van

was the third cited medium through which some residents also heard of the campaign. Also, family and friends, which are forms of interpersonal communication, were used as sources in getting information on the campaign. Furthermore, among these media, respondents said radio (35%) best gives information on the campaign followed by television (34%), information vans (30%) and family and friends (2%). However, none of the respondents considered the newspapers as an appropriate source of information on the campaign. Similarly, these findings support the findings from previous studies done by (Huhman *et al*, 2005; Lau *et al*, 2003; Idamah, 2015) that suggested that respondents received campaign information from television, radio, newspapers, family and friends. Even though, newspapers were least considered as a source of receiving information on the NSD campaign, it was the second largest source of receiving campaign information in the Lau *et al* (2003) study.

Further findings on the sources of information on the campaign included that, majority of the respondents said they had received more than enough information (42%) on the campaign, 37.5 per cent said they have received just about enough information and 20 percent also said they had received less than enough information. This implies that the various media used in campaigning have given more than enough information on the campaign so some respondents had no excuse of not participating in the campaign exercise. Also, as and when the information on campaign was given was described as very timely by most of the respondents((43%), 34 percent said they did not know/were not sure if the campaign information was given on time and 23 percent described it to be not timely.

It was also found that the age of a person did not affect his/her preferred means of getting information. From Table 16, it could be seen that the age does not have a significant influence in choosing a preferred medium of receiving information. More so, the level of education did have a major influence on the source through which information was received on the NSD campaign. Generally, these findings on sources of information in general and on the campaign had created high awareness level among Madina residents in that, they made use of the information received on the campaign by taking action to participate in the exercise. In a way, the sources they received information on the campaign have influenced their intentions to perform the desired behaviour. These findings reinforce what Bauman *et al* (2005) said on how mass media and interpersonal means of sending information on public communication campaigns help create high awareness level.

Research Question 4: In what way(s) has the campaign changed residents' behaviour towards sanitation?

Figure 10, Figure 11 and Table 15 have the answers to research question four.

As a result of the campaign, 80 per cent of the respondents said the campaign had been an eye opener to them meaning it had made them aware of the things they did not know before. Thus, the campaign may have influenced their attitude positively and they may have thought of performing the given behaviour since the behaviour can be controlled positively. However, 20 percent of the respondents said the campaign had not introduced any new thing, they did not know before. This means per the affirmative response given by most of the respondents in Figure 11, some respondents have properly been managing sanitation issues by sweeping the

streets, desilting gutters, defecating at the right places, disposing off waste properly and not littering the streets.

The finding in Table 15 shows that the campaign had caused a behaviour change among majority of the respondents. Thus, the campaign message had had an effect on respondents through the actions that were taken after hearing the message. Fifty point five (50.5) percent of respondents confirmed the campaign had changed their personal attitudes and 32.5% said the campaign had changed their attitude and as a result made them to educate others on proper sanitation practice. However, 17 percent of the respondents said there had not been any change in their attitudes as a result of the campaign. This response could be linked to those who claimed the campaign had not made them know anything different from what they already knew and they could be those who have not participated in the exercise before. In respect to the theories of reasoned action and planned behavior (Ajzen & Fisbein, 1980; 1985), the intentions of the majority of the respondents caused change (by practicing proper sanitation) in their behaviour and the behaviour change had been influenced by their beliefs, personal attitudes, subjective norms and perceived behaviour control. They were performing this desired behaviour (proper sanitation practice) because they believed it could help resolve the negative threats of poor sanitation on their health through their personal attitudes (by disposing off refuse properly, not littering streets, sweeping the streets, desilting gutters, etc.); subjective norms (they might have seen the president and his vice, other ministers and members of parliament participating in the campaign exercise); and also they had realized that the performance of the desired behaviour had a positive outcome which could be controlled as well.

Generally speaking, majority of the respondents had decided to perform this given behaviour because through their own evaluation, they had realised the given behavior had a positive outcome. Also, they might have believed in it because important personalities such as the President and his vice had been seen participating in the exercise. These findings agree to the findings of Idamah (2015), Grodzi *et al* (2005), Hafstad & Aaro (1997), and Sly *et al* (2001) in respect to the theories used in these campaign evaluation studies that changed the behaviour of respondents.

5.2 Limitations of research

The first major challenge to the study was scanty literature on sanitation campaigns both within and outside Ghana. The present study therefore relied more on a review of literature on public communication campaigns instead of sanitation campaigns from outside Africa.

The findings of this study would have been more representative if the other residents in other regions had been surveyed. Even though 200 respondents were sampled for the study, it may not necessarily be representative of all Madina residents, particularly because the sampling process was not guided by strict protocols of random selection-such as the use of sampling frame.

More so, the improper structuring of houses in the various clusters made the systematic sampling of households according to the skip interval process described in the methodology cumbersome.

Also, the stipulated time for the study conducted was short, in that, four months was not enough for a larger population to be investigated. Thus, the study was confined to Madina.

Some respondents who were included in the sampling process declined to respond to questions that were asked by the researcher.

In spite of these limitations to the study, the findings fairly accurately reflect the nature of audience response to the National Sanitation Day (NSD) campaign.

5.3 Conclusion

The study sought to investigate how Madina residents were responding to the National Sanitation Day campaign. The study sheds more light on the levels of awareness/knowledge, sources of information, perception of residents of the campaign and their behaviour change. The data collected on this study supported the application of the two theories; theory of reasoned action and theory of planned behaviour to the public response of the National Sanitation Day campaign. In respect to the two theories, majority of the respondents perceived the campaign to be good so their beliefs influenced their intentions to perform the given behavior (proper sanitation practice). Some key findings from their performance of this desired behavior were: most of the respondents perceived the campaign to be a good initiative by the government and thought that it should be maintained; the campaign had had positive effect on the behavior (e.g. proper disposal of waste) of most respondents regarding proper sanitation practice in Madina and respondents said bye-laws must be enforced in Madina so that the exercise would be more successful in the study area. Other key findings from the study showed that respondents had high levels of awareness/knowledge on the campaign and also their major sources of information on the campaign were television and radio and they confirmed that the various media had given more than enough information on the campaign.

In relating the findings of this study to the findings of the previous studies, it can be concluded that the residents of Madina had responded to the campaign positively and it seemed to have caused an improvement in their attitudes towards proper sanitation practice. On the whole, the research has been successful except for a few setbacks discussed above.

5.4 Recommendations

Considering the findings and limitations of the study, some recommendations are suggested for future research studies. For the findings to be more representative, future researchers must survey respondents from all the ten regions in the country. This is because the National Sanitation Day campaign is a national affair and so the assessment of its effects must extend to all regions.

A comparative study can be done on this same topic. The study will compare responses from urban and rural residents so that differences can be drawn between rural and urban dwellers regarding sanitation issues. Also, the study can be done by using the qualitative approach where focus group discussion will be conducted in order to find out different views that can help curb poor sanitation.

The various media used in campaigning were found to be useful, successful and have increased awareness/knowledge levels of the residents. Therefore, the government has to intensify the campaign by employing other communication activities and also enforcing laws so that every citizen can participate in the exercise.

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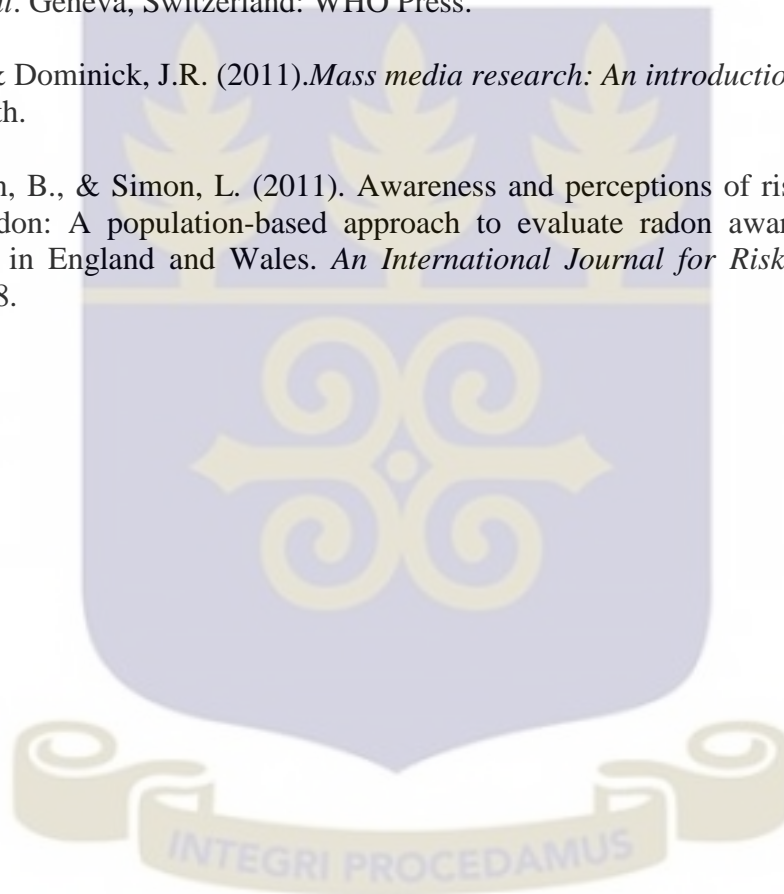
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APPENDIX A

UNIVERSITY OF GHANA

DEPARTMENT OF COMMUNICATION STUDIES

I am an MA student at the Department of Communication Studies in the University of Ghana. I am investigating the responses of Madina residents to the National Sanitation Day Campaign. This information is very relevant to my study hence your identity will be kept confidential.

SECTION A: LEVELS OF AWARENESS/ KNOWLEDGE

1. Have you heard of the National Sanitation Day Campaign?

- 1. Yes [] [Go to Ques. 2]
- 2. No [] [Terminate]

2. In which year, did you first hear of the campaign?

- 1.2007 []
- 2. 2014 []
- 3.2015 []

3. If you can recall, what does the campaign message require you to do?

- 1. To clean up surroundings
- 2. To not litter
- 3. To report/correct those who litter
- 4. Not Sure/don't remember
- 5. Other [state].....

4. Have you participated in any sanitation exercise as a result of the campaign?

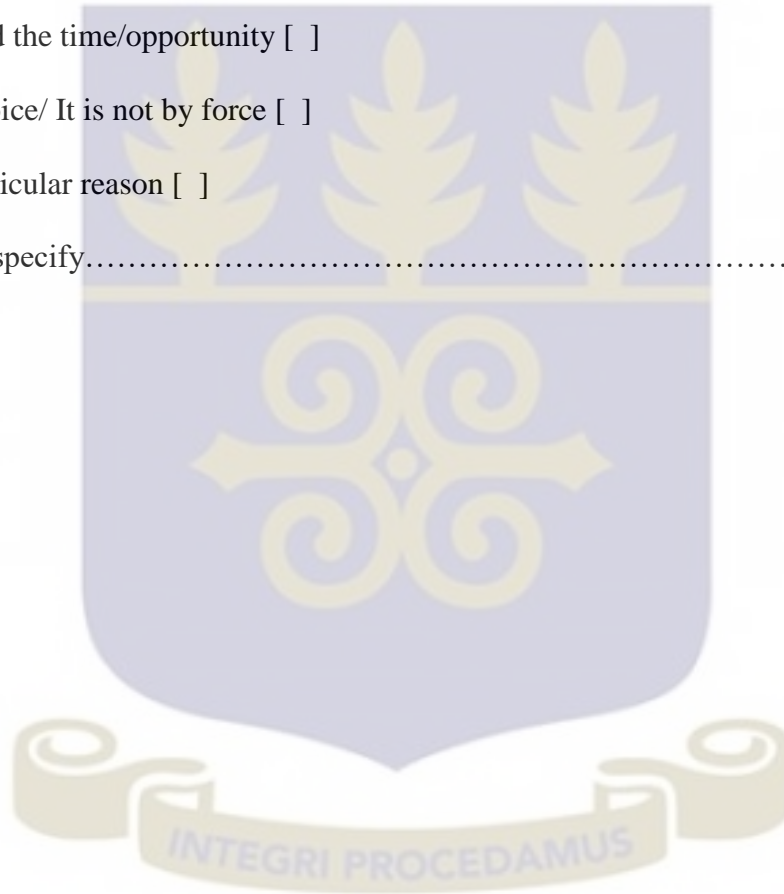
- 1. Yes []
- 2. No [] [Go to Ques.6]

5. If yes, how many times have you participated in the NSD campaign within the past year?

1. 1-3 [] 2. 4-6 [] 3. 7-9 [] 4. Never missed any []

6. If No, why have you not participated in the exercise before?

- 1. Not convinced about the message []
- 2. Not sure the exercise will be sustainable []
- 3. It is not my personal responsibility []
- 4. Not had the time/opportunity []
- 5. My choice/ It is not by force []
- 6. No particular reason []
- 7. Other, specify.....



SECTION B: PERCEPTION

On the scale 1 to 5 where 1 is strongly disagree, 2 is disagree, 3 is don't know/not sure, 4 is agree and 5 is strongly agree: how would you assess the campaign according to the following statements?

	Perception	Strongly disagree	Disagree	Don't know/Not sure	Agree	Strongly agree
7	I think the NSD campaign is a good initiative by the government					
8	The campaign has been successful in this area					
9	The campaign should be maintained					
10	The campaign will help eradicate diseases such as cholera and malaria					
11	The campaign message is simple and clear					
12	Residents are motivated to fully participate in the campaign through the provision of logistics such as litter bins and the removal of waste once it has been collected					
13	The various mass media used in campaigning are helpful					
14.	Bye-laws will ensure proper sanitation practice in this area.					

SECTION C: SOURCES OF INFORMATION

15. Through which of the following means do you get information in general?

[Indicate all that apply]

- 1. Television []
- 2. Radio []
- 3. Newspapers []
- 4. Magazines/Posters []
- 5. Internet []
- 6. Family and friends []

16. Which one of the options is your most preferred means of getting information in general?

- 1. Television []
- 2. Radio []
- 3. Newspapers []
- 4. Magazines/Posters []
- 5. Internet []
- 6. Family and friends []

17. Through which medium did you first hear of the National Sanitation Day campaign?

- 1. Television []
- 2. Radio []
- 3. Newspapers []

- 4. Information vans []
- 5. Family and friends []
- 6. Other, specify.....

18. Which one of the listed options best gives information on the campaign?

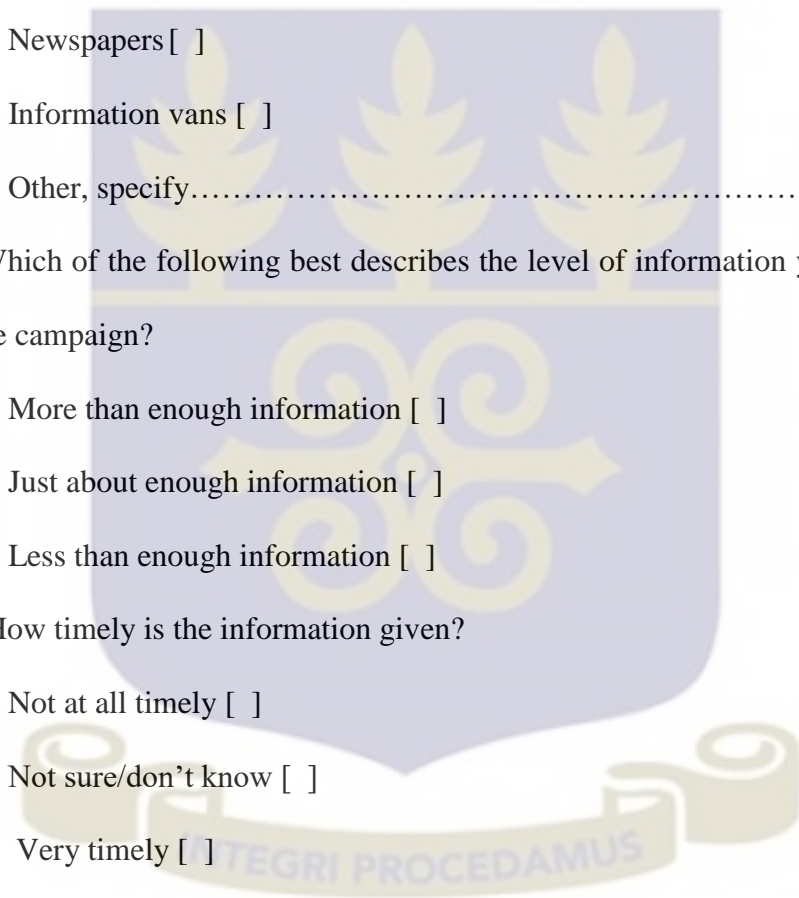
- 1. Television []
- 2. Radio []
- 3. Newspapers []
- 4. Information vans []
- 5. Other, specify.....

19. Which of the following best describes the level of information you have received on the campaign?

- 1. More than enough information []
- 2. Just about enough information []
- 3. Less than enough information []

20. How timely is the information given?

- 1. Not at all timely []
- 2. Not sure/don't know []
- 3. Very timely []



SECTION D: BEHAVIOUR CHANGE

21. Has the NSD campaign made you aware/know anything that you didn't know before?

- 1. Yes []
- 2. No []

22. What action have you taken after hearing the campaign message?

- 1. Changed my attitude (proper sanitation practice) []
- 2. Changed my attitude and educated others (proper sanitation practice) []
- 3. No Change []
- 4. Indifferent []
- 5. Other (s), Specify.....

23. How have you personally been managing sanitation conditions after hearing campaign message?

- 1. Sweeping the streets []
- 2. Desilting gutters []
- 3. Proper disposal of waste []
- 4. Not littering the streets []
- 5. Defecating at the right places []
- 6. Other (s), specify.....

SECTION E: DEMOGRAPHIC DATA

24. Indicate your gender

- 1. Male []
- 2. Female []

25. Which of the age categories do you find yourself?

- 1. 13-17 years []
- 2. 18- 25 years []
- 3. 26- 35 years []
- 4. 36- 45 years []
- 5. 46-70 years []
- 6. Above 70 years []

26. What is your level of education?

- 1. Primary-JHS []
- 2. Secondary []
- 3. Vocational []
- 4. Tertiary []
- 5. No formal education []

27. What is your occupation?

- 1. Student []
- 2. Public/ Civil / Professional servant []
- 3. Trader/ Businessman []
- 4. Unemployed []
- 5. Other, specify.....