Effectiveness of Communication Strategies of the Urban Health Extension Program in Bringing Behavioral Change in Habits of Hygiene and Sanitation: The Case of Woreda 1 (Kebele 01/18) of Lideta Sub-city – Addis Ababa

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This is to certify that the thesis prepared by Engdawork Demeke Demissie, entitled "Effectiveness of Communication Strategies of the Urban Health Extension Program in Bringing Behavioral Change in Habits of Hygiene and Sanitation: The Case of Woreda 1 (Kebele 01/18) of Lideta Sub-city – Addis Ababa" and submitted in partial fulfillment of the requirements of the Degree of Master of Arts in Journalism and Communication complies with the regulations of the University and meets the accepted standards with respect to originality and quality.

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ABSTRACT

Effectiveness of Communication Strategies of the Urban Health Extension Program in Bringing Behavioral Change in the Habits of Hygiene and Sanitation: The Case of Woreda 1 (Kebele 01/18) of Lideta Sub-city – Addis Ababa

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These days, health is taken to be the product of the individual's continuous interaction and interdependence with her/his ecosphere. Based on this belief, enabling people to increase control over and improve their health has been considerably given attention in health policies made nationally and internationally. One method to achieve this goal is a strategic health communication. This study is, therefore, primarily focused on the communication strategies employed by the Addis Ababa Health Bureau's Urban Health Extension Program (UHEP) to bring behavioral change in the habits of hygiene and sanitation. Woreda 1 of Lideta Sub-city, in Addis Ababa, is deliberately chosen because it is one of the highly congested slums of the city where poor hygiene and sanitation is a severe problem.

The major issues raised in this study are the communication strategies employed by the UHEP to change the community's unhealthy hygiene and sanitation habits, and their effectiveness in building the audience's self-efficacy and thereby developing healthy behaviors. Qualitative research method was basically used to deal with these issues, and an attempt to complement it with a quantitative one was made. Data were collected through semi-structured in-depth individual interviews, participant observation and a questionnaire filled out by the UHEP's target audience. Albert Bandura's Social Cognitive Theory (SCT), and especially his concept of Self-

efficacy, was used to analyze and discuss the data collected. The self-efficacy level of the targets was also measured by using Shwarzer and Jerusalem's Generalized Self-Efficacy scale (GSE).

As a result of the analysis, the study indicated that the major communication strategies of the UHEP are interpersonal channels assisted by demonstrations. Though mass media channels were also taken as part of the strategy, priority was given to printed materials like brochures. These materials were also found to be with very poor quality to appropriately transcend the messages they contained.

Regarding their effectiveness, the communication strategies were found to be ineffective in building their target audience's self-efficacy and thereby in achieving the intended change in behavior. This is attributed to the contents and the approach of the communication strategies. The majority of the UHEP's models were found to have very low level of self-efficacy because the contents were informative in nature that they cannot build self-efficacy, and the approach was in a classroom lecture format.

The study recommends exploitation of other channels like peer-to-peer and traditional communication channels, adequate budget allocation for mass media, and modification of contents in a way they would increase self-efficacy in order to make the program effective in the hygiene and sanitation package.

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List of Acronyms

AAHB – Addis Ababa Health Bureau

AED – Academy of Educational Development

AIDS – Acquired Immuno - Deficiency Syndrome

CDC – Centers for Disease Control and prevention

DCD – Development Cooperation Directorate

FAO – Food and Agriculture Organization of the United Nations

FDRE – Federal Democratic Republic of Ethiopia

FEDB – Finance and Economic Development Bureau

FHI – Family Health International

FMoH – Federal Ministry of Health

GSE – Generalized Self-efficacy

GWP – Global Water Partnership

TGE – Transitional Government of Ethiopia

HEP – Health Extension Program

HEW – Health Extension Workers

HIV – Human Immuno Virus

HSDP – Health Service Development Program

KABP – Knowledge, Attitude, Belief and Practice

MDG – Millennium Development Goal

MoND – Ministry of National Defense

NHCS – National Health Communication Strategy

NC I– National Cancer Institute

NGO – Non Governmental Organizations

OECD – Organization for Economic Co-operation and Development

PADCO – Project on Development Cooperation

PAHO – Pan American Health Organization

PASDEP – Plan for Accelerated and Sustained Development to End Poverty

PCC – Population Census Commission

PCSP – Population Communication Services Project

PHAST – Participatory Hygiene and Sanitation Transformation

SNNPR – South Ethiopian Nations, Nationalities and Peoples Region

STI – Sexually Transmitted Infections

TB – Tuberculosis

UHEP – Urban Health Extension Program

UNICEF – United Nations Children's Fund

USAID – United States' Agency for International Development

WASH – Water supply, Sanitation and Hygiene

WHO – World Health Organization

WSP – Water and Sanitation Project

CHAPTER ONE

Introduction

The term 'health' implies a very wide concept as opposed to what we literally mean by it in our day-to-day conversations. In this regard, the World Health Organization's (WHO) definition of health signifies that it is not merely about its physical aspects; meaning only absence of diseases, rather it is "a state of complete physical, mental and social well-being' (WHO, 1946 as quoted in Bracht et. al., 1990, p. 33). This definition indicates that any service, product, or plan made to boost the community's health should encompass all the three aspects, and must strive for the fulfillment of the community's physical, mental and social well-being.

In an attempt they made to define and discuss 'health promotion', Bracht et. al.(1990) state that the WHO's Alma Ata declaration of 1978, which is made on primary health care, especially emphasized the social dimensions of health. They further quoted the declaration as "the [Alma Ata] conference emphasized the importance of full and organized community participation and ultimate self-reliance with individuals, families and communities assuming more responsibility for their own health". (p. 34). Glanz et. al. (2008) strengthens the need to emphasize the social aspect of health by saying, "Individual health does not exist in a social vacuum". (p. 9).

If the responsibility for improving health (which is a 'complete physical, mental and social well-being) is shouldered to the community, health related programs, whether they are campaigns, health promotions, extension programs, social marketing, or etc. need to take health communication as a tool. This is because, after all, the goal they all have is to reach the community with the messages that enable it build its health; which is the core function of

communication. A number of literatures agree on the prominence of health communication in promoting and improving health, and developing healthy behaviors (NCI,1989, p. 2; AED, 2006, p. 2; USAID AI. COMM Project, 2009, p. 1 & 2; WHO, 2009, pp. 26–31; http://cancer.gov/pinkbook; http://www.cdc.gov/communication/cdcynergy .htm; http://cloud2.gdnet.org; http://www.cdcpin.org/scripts/campaign/strategy.asp; http://www. uniteforsight.org/health-communication-course/module).

The reason for this agreement is that health is taken to be "the product of the individual's continuous interaction and interdependence with his or her ecosphere – this is, the family, the community, the culture, the societal structure and the physical environment", (Bracht et. al., 1990, p. 35) and in line with this, health communication is defined as "the process of enabling people to increase control over and improve their health" – meaning their interaction with their ecosphere (WHO,1986, p. iii).

According to National Cancer Institute (NCI, 1989), this important tool, health communication, can alone:

> increase the intended audience's knowledge and awareness of a health issue, problem, or solution, influence perceptions, beliefs, and attitudes that may change social norms, prompt actions, demonstrate or illustrate healthy skills, reinforce knowledge, attitudes or behavior, show the benefits of behavior change, advocate a position on health issue, …[and] refute myths and misconceptions and in combination with other mechanisms, it can: cause sustained change in which an individual adopts and maintains a new health

> behavior, … [and] overcome barriers/ systemic problems such as insufficient access to care (p. 3).

With all these capabilities of it, if health communication is well planned and made multi-strategic, it can bring multiple types of changes among individuals, informal groups, well structured organizations, communities and the society to affect health status (Ibid., p. 4).

Coming to the health communication strategies, they are defined as "the overall approaches [that] the [health] programs take [and] derive from and contribute to achieving defined goals and objectives" (Ibid., p. 22). These approaches need to be in compliance with concepts and theories from different sciences for their success. In support of this, the website of 'Campaigns and Initiatives' states that researches and evaluations conducted on health communication programs assert that specific and effective strategies, combining "theories, frameworks, and approaches from behavioral sciences, communication, social marketing, and health education" should be implemented so as to promote health and prevent diseases (http://www.cdcpin.org/scripts/campaign/strategy.asp).

When presented in the document produced for a program's plan, the specific communication strategy set for the program is usually put under a title 'Communication Strategy Statement', which also can sometimes be addressed as 'Creative Brief'. This is because it will brief the creative team, which later develops the messages to be conveyed, by providing a foundation and boundaries for all the materials to be produced and the tasks to be carried out (O' Sullivan, et. al., 2003, p. 124; NIC, 1989, p. 41).

A 9th UN Communication for Development Round Table Report organized by FAO (FAO, 2005) and others mentions the main communication strategies for sustainable development to be "identified at three levels: behavior change communication [which can be further classified into perspectives and theories explaining individual behavior, interpersonal behavior, and community or social behavior], advocacy communication, and communication for social changes" (p. 27 & 28).

Whichever, among the main strategies the program selects, the methods or tools to be most probably used as an approach to influencing the intended audience will be one or combination of the following: media literacy, media advocacy, public relations, advertising, education entertainment, individual and group instructions or partnership development (NCI, 1989, p. 4; O' Sullivan, et. al., 2003, pp. 139 – 164). What matters here is to timely check for the effectiveness of the strategies and review them, whenever necessary, so as to ensure the "viability and appropriateness of the factors that originally determined as strategy". The effort of reviewing the strategies will be gained from the thought of the communication strategy as a " 'working document' that evolves based on audience, environment and communication factors" contributing to the health program by enabling the society be healthier and safer (O' Sullivan, et. al., 2003, pp. 230; Bracht, 1990, p. 43).

1.2. Background of the Study

According to the Summary and Statistical Report of the 2007 Population and Housing Census Report (PCC, 2008), the Federal Democratic Republic of Ethiopia (FDRE) has more than 74 million of population. Its 1.1 million square kilometer of total area is administratively divided

into nine Regional States and two City Administrations. These are further divided into 611 woredas (districts) and 15,000 kebeles. About 83.9 percent of the total population lives in rural areas while the rest 16.1 percent dwells in urban areas.

As WHO Country Cooperation Strategy (2008 – 2011) states it, about 38.7 percent of the country's population lives in absolute poverty. Though a significant decrease in maternal mortality ratio (from 871/100,000 live births in 2000 to 673/ 100,000 live births in 2005) and other promising results are achieved out of the implementation of the Poverty Reduction Strategy, the Plan for Accelerated and Sustained Development to End Poverty (PASDEP) and the third phase of the Health Sector Development Program (HSDP III), still more effort is demanded to meet the agendas of Millennium Development Goals (MDG) in the time set (WHO, 2009). The Federal Ministry of Health (FMoH) Health Sector Development Plan (HSDP, 2005) also indicates that illiteracy, inadequate access to safe drinking water and sanitation facilities, and poor access to health services are causes to ill-health in Ethiopia beside poverty.

In an attempt made to alleviate this poor health condition and meet the MDGs, the Ethiopian government has been carrying out a number of reform programs in its new health care system, which emanates from the 1993 health policy of the FDRE. The health policy, and therefore the health sector development strategy of the country, is founded on the principle of "providing quality promotive, preventive and selected curative health care services in an accessible and equitable manner" to the pluralistic population. (WHO,2009, p. 8; Health Policy Document of the Transitional Government of Ethiopia (TGE), 1993, pp.24 -25; FMoH Health Extension Program (HEP) Profile, 2007, p. 2).

Bilal, et. al. (2008) discuss that one of the reform programs resulted from the policy, is the Health Extension Program (HEP) launched in 2003 with an objective of reaching the poor and delivering "preventive and curative high-impact intervention to all of the Ethiopian population". (p. 433).

The HEP focuses on four major areas and provides sixteen different packages to reach the poor and address inequities. These are:

i. Diseases Prevention and Control under which packages of HIV/AIDS and other Sexually Transmitted Infections (STIs) and Tuberculosis (TB) prevention and control, Malaria prevention and control, and First aid emergency measures are addressed;

ii. Family Health that provides packages of Maternal and child health, Family planning, Immunization, Nutrition, and Adolescent reproductive health;

iii. Hygiene and Environmental Sanitation dealing with packages of Excreta disposal, Solid and liquid waste disposal, Water supply and safety measures, Healthy home environment, Control of insects and rodents , and Personal hygiene; and

iv. Health Education and Communication (Habtamu, 2007, p.8-9; FMoH:2007, p. 11; Bilal, et. al, 2008, p. 434).

As FHI (2010) reports it, taking advantage of the myriad of lessons learned and successes of the rural HEP, the FMoH launched the Urban Health Extension Program (UHEP) in 2009 to benefit approximately 2.6 million Ethiopians living in 19 cities and towns in the Amhara, Oromo, SNNPR and Tigray regions. The Ethiopian Government has designed this new program to

improve access to health services in urban areas throughout the country by training and deploying one Health Extension Worker (HEW) for every 500 households. The program provides services to household, neighborhood, school and youth centers. (p. 3).

The Addis Ababa Health Bureau (AAHB) has also implemented the UHEP in each Woreda of the capital with the aim of improving access to basic maternal, newborn and child health, nutrition services and water, and sanitation. (http://ethiopia.usembassy.gov/pr262010.html).

1.3. Statement of the Problem

Addis Ababa is described in a City Profile developed by the UN – Habitat (UN – Habitat, 2008) as "one of the fast growing cities in Africa, posing critical challenges, including high rate of … housing shortage and environmental degradation". Giving an example, the same document mentions that 35 percent of the solid waste of the city is not collected, and rivers, soil and water are frequently polluted by poorly managed industrial wastes (p. 4).

The rapid population growth in the city, added to poor maintenance and lack of new facilities have limited the amount of the people who get water from public taps to only about 34 percent (Ibid., p. 9). A survey conducted by Project on Development Corporation in Ethiopia (PADCO, 1996) also shows that only 55 percent of Addis Ababa's population has access to clean water supply; 49.8 percent get safe solid waste collection service and 32.8 percent drainage facilities. UN – Habitat (2008) rates the sanitation problem in Addis Ababa to be the worst by indicating that 26 percent of the houses in the city and the majority of the dwellers do not have toilets and thus use rivers, ditches and open spaces or bushes. The same rivers appear to be sources of water for washing and bathing as water supply is short in the city (pp. 9-12).

Woreda 1 of Lideta Sub-city is one of the woredas of Addis Ababa that this case study focuses upon. The Woreda is one among the densely populated Woredas of the Sub-city (Lideta), and shares all the problems of the metropolis mentioned above. If that is so, it will be obvious that such poor infrastructure and housing conditions in the Woreda will unquestionably aggravate its hygiene and sanitation problem.

One of the four major areas of the HEP, hygiene and environmental sanitation, is an ideal health communication intervention to address this problem and improve the community's health. Nevertheless, the result may be the unexpected due to possible failure in the design and implementation of the communication strategies. The FMoH National Health Communication Strategy (NHCS, 2004), in this regard, points out that "[t]here are no readymade strategies and methods that could be effectively applied universally to achieve the goal of behavioral change", and hence suggests that the strategies and methods of health communication should be designed and developed in a way they suit the specific community. (p. 15). Therefore this study examined the effectiveness of these strategies to enable the community to develop the intended healthy behavior.

1.4. Purpose and Goals of the Study

The major purpose of this study was to find out how much the communication strategies of the UHEP are effective in bringing a healthy behavioral change in habits of hygiene and sanitation. Therefore, the goals of the study were to:

1. explore the health communication strategies of the UHEP designed specifically for the interventions related to hygiene and environmental sanitation,

2. check how much scientific they are – how much they base themselves on theories and models of behavior change, and
3. see what behavioral change they brought in the habits of hygiene and sanitation of the audience.

1.5. Research Questions

The following research questions were raised to enable the achievement of the goals:

1. What communication strategies were developed by AAHB to enhance the community's hygiene and sanitation habits?
2. How much effective were the communication approaches in boosting the self-efficacy that the target audience needs to develop healthy behavior of hygiene and sanitation?
3. How much successful were the communication strategies in making the program achieve the expected outcomes in habits of hygiene and sanitation?

1.6. Significance of the Study

HDSP III (2005) concludes that hygiene and sanitation problem, resulting from the poor shelter-related infrastructure and unhealthy habit, has been a cause for diseases and ill-health. As only about 6 – 8 percent of the households have access to improved sanitation, the rest remain to be vulnerable to problems attached to lack of hygiene and sanitation. Taking this fact into account, one can see that the study will be mainly significant to the grass-root level population. That is why it aims at the effectiveness of the communication strategies employed to address the same element of the community.

O' Sullivan and others (2003) present the Process and Principles of Health Communication – the 'P' Process – to pass through six steps:

a) analysis (understand the nature of the health issue and barriers to change),
b) strategic design,
c) development, pretesting, revision and production (of messages),
d) management, implementation, and monitoring (of the program),
e) impact evaluation (on audiences), and
f) planning for continuity.

When applied to the UHEP being exercised in Addis Ababa, now will be the right time to evaluate the impacts that the program might have on the target audience in order to indicate if improvements will be necessary through the same program or other similar programs. (NCI, 1989, p. 11 & 108). Therefore this study remains to be significant as the findings will benefit interested stakeholders of and practitioners in the UHEP as it evaluates the impact of the program.

Finally, to the best knowledge of the researcher, there are very few, if not none, articles that evaluate the effectiveness of health communication strategies of UHEP published and disseminated so far. Hence, this study would serve as a spring-board for further studies and improvements in the area of the study.

1.7. Scope of the Study

Any strategic health communication, according to O'Sullivan, et. al. (2003), needs strategic evaluation. This evaluation is expected to include guidelines and recommendations for improvement in future programs, in addition to the process, objective, impact, etc. of the

program (p. 218). So, this study has limited itself to assessing the effectiveness and impacts of the health communication strategies in enhancing the healthy hygiene and sanitation habits of the target audience, and thereby making recommendations for the improvement of the program.

1.8. Limitations of the Study

The major limitation of this study is the lack of well organized and stratified documents and data in the Woreda about:

a) access to improved hygiene and sanitation facilities of households in the Woreda,
b) health related issues of the Woreda dwellers, and
c) waste management practices in the Woreda.

Other limitations that could very slightly affect the study are the difficulties to easily find UHEP materials like manuals, learning materials, etc. and lack of transparency in the process through which the model families in the Woreda were chosen by the HEWs. These were given due attention, and maximum efforts have been exerted so that they would not lead the study to a wrong finding.

1.9. Organization of the Thesis

This thesis is comprised of five chapters. The first chapter gives an introduction. The second chapter deals with the review of literature. This is followed by chapters, three and four which deal with the research methodology and data presentation and analysis, respectively. Conclusion and recommendations constitute the last part of the thesis.

CHAPTER TWO

Review of Related Literature

2.1. Introduction

This chapter makes use of theoretical underpinnings to explore the effectiveness of the communication strategies employed by the Addis Ababa City Administration's UHEP to bring behavioral change regarding hygiene and sanitation among the society. This case study is conducted in Woreda 1 (previously Kebele 01/18) of Lideta sub-city, which is one of the densely populated Kebeles among the 99 Kebeles of Addis Ababa.

Since health communication is a recently identified discipline, its theories are the blend of communication, public health, social marketing, psychology and other related fields. In this regard, Schiavo (2007) argues that it is a multidisciplinary approach that depends on various areas of study like "interpersonal communication, public relations, public advocacy, community mobilization, professional communication, and constituency relations" and others. (p. xxi). Hence it is believed that the theories of health communication are amalgamated from various fields of social and natural studies.

Despite the fact mentioned above, the design of health communication strategies needs the consideration of the situations in the particular setting in which the health communication program will be implemented. The National Health Communication Strategy of Ethiopia (FMoH, 2004) states that the foundations for the health communications of any country are built on the principles of the government (p.10). Having these points in mind, it can be understood that the communication theories to be discussed below can be used to assess the degree to which

the communication strategies designed for the UHEP of Addis Ababa are effective in bringing behavioral change among the community in hygiene and sanitation issues.

2.2. Challenges of Hygiene and Sanitation in Ethiopia

The Ethiopian Hygiene and Sanitation Strategy (FMoH, 2005) defines improved hygiene and sanitation as:

> …the process where people demand, develop and sustain a hygienic and healthy environment for themselves by erecting barriers to prevent the transmission of diseases, primarily from faecal contaminations (p.11).

In order to gain this improved sanitation and hygiene, physical and behavioral barriers such as washing hands with soap or substitute after defecation; using safe and clean toilets; making the supply, collection and storage of drinking water safe and clean; and managing wastes (solid or liquid) appropriately must be built. (Ibid, p.12).

WASH Africa is a movement working as a part of global WASH (Water supply, Sanitation and Hygiene) campaign on coalition building and mobilizing actors around water, sanitation and hygiene issues; gaining political and social commitment required making a difference; and bringing behavioral and social changes at all level in relation to WASH in Africa. A report from WASH Africa (WASH Africa: 21 April, 2010) indicates the indispensability of behavioral change in this regard by stating that the lack of the physical and behavioral barriers discussed above, coupled with poor waste management are regarded to be the cause of diseases and epidemics like AWD, which occurred recurrently in Addis Ababa and other six regions of the nation.

The following sub-parts discuss the challenges of building such barriers and the knowledge, attitude, belief, and practices (KABP) related to hygiene and sanitation in Ethiopia.

2.2.1 Knowledge, Attitude, Belief and Practice (KABP) towards Hygiene and Sanitation in Ethiopia

2.2.1.1 Building and using clean toilets

Building and using a safe, durable, and sealed toilet to contain all feces when around the compound; burying feces when out in the fields; or using public toilets when away from the compound is one of the set of barriers that should be built to improve hygiene and sanitation. However, the situation in Ethiopia is quite different. According to World Bank's Issues Paper (World Bank, 2003), the access to toilets in Ethiopia ranges between 9 percent in rural areas to 72 percent in the Urban, which makes the national average of 18 percent. Even most of these traditional toilets used, according to the FMoH (2005), are made from locally available materials that they do not address the concerns of smell, rising gas, structural collapse, fear of falling in, flies, and privacy (p.14). This means that they are not far better than defecating on the open ground that results in fecal contamination transmitted through fluids (by entering unprotected water sources), fingers (while cleaning baby's bottom or during anal cleansing), flies (when they land on feces) and feet (when feces are stepped in) (Ibid., p.11). In addition, KABP studies indicate that most people resist to build "houses for feces" and if they build, the toilets will not most likely have stability, privacy and safety (Water Aid, 2003; UNICEF, 1997).

2.2.1.2 Hand washing with soap

Documents agree that lack of hand washing habit after defecation, before eating, or before preparing food is the major source of disease in Ethiopia because of the fecal-oral route (Lochery, 2003). Though there is variety of cleansing rituals among the society, mostly related to religious rituals, it doesn't seem that strong norms exist for washing hands with soap or a substitute after visiting the toilet, having contact with children's feces, or before preparing or eating meals (FMoH, 2005, p.12). Frequently given reasons for such cases are a serious shortage of water and lack of surplus cash to purchase soap. Lochery (2003) shows this by presenting the facts that the amount of water allocated to washing hands and personal hygiene per a household per day is 1 to 2 liters and that most schools do not have hand washing facilities.

2.2.1.3 Implementing and applying safe water chain

The access to safe water in Ethiopia, according to the Health Sector Strategic Plan (FMoH, 2005), has increased from 23.1 percent in 1997/98 to 28.4 percent in 20002/03 (p.20). To the contrary, especially in the cities and towns, the water supplied to the residents tend to be contaminated for they are bedded close to the poor sewerage systems or aged supply pipelines (WWW.afrik-news. 29, April 2009; WWW.wateraid.org; WASH news Africa, April 21, 2010).

Another possibility of water contamination is reported to happen during collection and storage. Touching the taps with unclean hands, using unwashed and carelessly handled plastic hoses, or failure to keep collection utensils clean in the case of collection; and poor methods of storage like buckets and pots ('ensera') that only allow the 'dip' method but not 'pour' method are mentioned to end up in contaminations (Crampton, 2005).

2.2.1.4 Appropriate waste management

A considerable amount of solid and liquid waste is contaminated with human and animal feces making safe disposal and management a serious matter both in urban and rural Ethiopia. In his MA thesis, Yalew (2009) states that "one of the poorest environmental performances in Ethiopia pertains to the management of all types of wastes" (P.16). For instance, out of 800,000 cubic meters daily solid waste of Addis, only 10 percent (8,024 cubic meters) is properly discharged (WWW.afrik-news.com April 29, 2009). On the other hand, in a presentation he made under the title "Overview of Addis Ababa City Solid Waste Management System", the mayor Kuma Demeksa argues that a household generates solid waste of 0.4 kg per day and about 80 percent of this waste is daily collected as the municipal collection rate has grown from 60 to 80 percent (Kuma, 2010, p. 9). The rest amount of solid waste is never collected. Instead, as UN-Habitat (2008) says, it is dumped into rivers, open ditches, on roadsides or other open spaces where one can usually see children playing or "scavenging", which is another health risk (p. 16).

Liquid waste disposal is an unresolved problem for Addis Ababa, like all the other urban areas in the country. In Addis Ababa, the capital with a sewerage system accessed only by a very small percentage of affluent families, great reliance on septic tanks and pit toilets is observed (FMoH: 2005, P.14). This inadequate sewerage system forces the residents to depend on trucks for 'evacuation' of the liquid waste, which will be costly and time taking (Ibid.; UN-Habitat, 2008, p. 9). This poor hygiene and sanitation accounts for 60 percent of the diseases happened in Ethiopia (FMoH, 2005, p. 15).

2.2.2. Problems of Funding Sanitation Promotion to Meet Coverage Targets in Ethiopia

2.2.2.1 Lack of fund

WSP Africa (2004) states that the aid from Development Cooperation Directorate (DCD) of the Organization for Economic Co-operation and Development (OECD) for water supply and sanitation has increased since 2001 following a temporary decline in the 1990s. The combined annual bilateral and multilateral support to water supply and sanitation in 2007 was USD 6.2 billion, with approximately 26% for support to Sub-Saharan Africa. Unfortunately, the information from the OECD does not allow for a breakdown of the support into separate components of water, sanitation and hygiene promotion. However, a closer review of a sub - sample of programs found an estimated 50% for water supply, 20% for sanitation and 30% for activities combining water supply and sanitation. Separate information on hygiene promotion could not be obtained. The Global Water Partnership (GWP) estimates that the expenditure for basic sanitation to meet the 2015 MDG sanitation target is USD 17 billion annually, indicating a significant deficit in the current funding allocation before the targets can be achieved. It is estimated that basic sanitation improvement in Africa needs an investment of between 40 and 90 USD per capita and between 26 and 50 USD in Asia (p. 9).

In Ethiopia also, few regions budget exclusively for improved sanitation and hygiene. The environmental health department has limited resources to promote latrine construction and hygiene, and has largely depended on donor and NGO support. It has been estimated by the UNICEF that only one percent of the health budget is available for sanitation and hygiene promotion (FMoH, 2005, p. 12 – 17).

2.2.2.2 Inappropriate use of funds

According to WSP Africa (2004) the scale of the implementation implied by the MDG target on basic sanitation requires an enormous increase in the number and use of sanitation facilities. However, past experience in sanitation suggests that a supply driven strategy to simply build more toilets with household subsidies may result in unused facilities (p. 6). This shows that the aspect of behavioral change in use in Ethiopia has been neglected; which makes the use of the funds for sanitation to be improper. This is because just building many toilets or other sanitation facilities cannot help the intended results be achieved. However, the promotional principles built into the Participatory Hygiene and Sanitation Transformation (PHAST) methodology, that are recommended by most recent studies and are mentioned as follows underscore the behavioral aspect.

- Any sustainable improvement in hygiene and sanitation must be based on a new awareness of the complex interaction between behavioral and technological elements.
- The best way to achieve sustainable improvement is to take an incremental approach, starting with the existing situation in a community and building up a series of changes.
- Improvement in hygiene behavior alone has been shown to have a positive health impact whereas improvement in sanitation facilities alone may not bring health benefits. Therefore, greater emphasis needs to be put on improving hygiene behavior, but the ideal situation would be one where improvement in both behavior and facilities can take place simultaneously (WHO, 2000, p. 4).

In the National Hygiene and Sanitation Strategy the FMoH (2005) discusses the current Ethiopian hygiene and sanitation condition by presenting the coverage of the sanitation facilities instead of focusing on the amount of behavioral change obtained by the public, which indicates that the funds are still going mainly to building the facilities than creating awareness and changing behavior (p. 12 – 15). The next part deals with the role of health communication in Health Extension and related issues.

2.3 Role of Health communication in Health Extension Program

2.3.1. Health Communication

Many writers have tried to define or redefine health communication since its recent introduction. However, due to its multidisciplinary nature mentioned above, many of the definitions appear somewhat different from each other. Nevertheless, when they are analyzed, most share its role, which is influencing and supporting individuals, communities, health professionals, policymakers and other stakeholders to make a behavioral practice sustainable, or make/ change policy that improves health outcomes (NCI, 2002, p. 2). Schiavo (2007) quotes the Centers for Disease Control and prevention (CDC) defining health communication as "the study and use of communication strategies to inform and influence individual and community decisions that enhance health" (p. 5). Healthy people 2010, also defines health communication as "the art and technique of informing, influencing, and motivating individual, institutional, and public audiences about important health issues" (NCI, 2002, p. 11 – 12).

Based on these definitions, it can be said that health communication uses effective principles to plan and create initiatives at all levels, from one brochure or website to a complete communication campaign in order to achieve an aimed health goal.

2.3.2 Characteristics of Effective Health Communication

Schiavo (2007) identifies some key characteristics of health communication. Other authors also discuss the same features among which some are discussed below.

Health communication is "audience – centered" as it is about improving health outcomes by encouraging behavior modification and social change. Therefore, it relies on the complete understanding and involvement of the target audience. It is also "a long-term process that begins and ends with the audience's desires and needs" (Schiavo, 2007, p. 7&12; PCSP, 2003, p. 12).

If a health communication program is wanted to be successful, it needs to get based on a true understanding of not only the audience, but also the situational environment. This can only be achieved when the strategies used in the communication are grounded in research. Schiavo (2007, p.13) and the NCI (2002, p.2) state the **research–based characteristic of health communication** in an almost similar statement.

Health communication needs to be strategic in displaying sound strategy and a feasible plan. Therefore, the communication strategies, the overall approach used to perform the objective of the health communication program, need to be research based and well planned in order to meet the prior requirement – reaching the audience's heart (Schiavo, 2007, p. 15 & 16). Strategic communications is the program's steering wheel which leads it to the desired goal. It is also "the glue that holds the program together or the creative vision that integrates a program's multifaceted activities" (PCSP, 2003, p. 4).

Communication, especially **health communication, is a long-term process** as it attempts to influence people and their behaviors. Schiavo (2007) says that in health communication conveying certain health messages to the target audiences "is only the first step of a long-term, audience-centered process" (p. 16). This is because the frame work of the process of behavior change (PBC) recognizes that behavioral change – thus communication intended to influence behavioral change – is a long process. As the PCSP's field guide (2003) indicates, people usually move through several intermediate steps in the behavioral change process. Thus, they can be generally described as the following looking at the step they are on;

a) **Pre-knowledgeable:** those unaware of the problems or their personal risk.
b) **Knowledgeable:** those aware of the problem and knowledgeable about desired behaviors.
c) **Approving:** those in favor of the desired behavior.
d) **Intending:** those who intend to personally take the desired actions.
e) **Practicing:** those who practice the desired behaviors.
f) **Advocating:** those who practice the desired behaviors and advocates them to others (p.8).

It can be easily understood, from the above discussion, that **health communication is process-oriented**.

Another characteristic of **health communication** is that it **needs to be cost-effective**. Strategic health communication is expected to produce healthy outcomes in more efficient and cost-effective ways (Ibid, p. 15). This means that solutions that allow communicators to advance their goals with minimal use of human and economic resource. However, it does never mean significant cut downs should be effected while there is adequate resource to support all the

programs. "Communicators should use their funds as long as they are well spent and advance their research - based strategy" (Schiavo, 2007, p. 18).

Health communication should also be creative in support of strategy. Creativity will definitely allow the communicators to use a variety of communication in which they consider multiple channel and format to reach the target audience. In this regard, effective strategic communication can integrate interpersonal communication, community-based channels, and various media to create a dynamic, two-way exchange of information and ideas. "The communicator's creativity should come into play by devising the most suitable and culturally friendly tools to engage intended groups in the process of changing their behaviors, beliefs and attitudes toward the disease and to prevention" (Ibid, p. 19; PCSP, 2003, p.13). Apart from these, creativity enables to identify the settings (times, places, and states of mind) in which the target audiences are more receptive to and act upon the message (NCI, 2002, p. 27).

Health communication needs to be media and audience specific. Making messages audience – specific and tailored to the channel maximizes the opportunity of the messages' reception to be most effective. The research – based characteristic of health communication assists this for it enables the use of local advocates' and community representatives' contribution increase the likelihood that the message will be heard, understood, and trusted by the target audience (Schiavo, 2007, p. 20).

The ultimate proof of the effectiveness of a strategic health communication lies in the health outcomes achieved as a result of behavioral change (PCSP, 2003, p. 13). Hence, **health**

communication must be result-oriented, or aimed at behavioral and social change. Schiavo (2007) explains this nature of health communication as follows:

> Although the ultimate goal of health communication has always been influencing behaviors and social norms, there is a renewed emphasis on the importance of establishing behavioral and social objectives early in the design of health communication interactions. "What do you want people to do?" is the First question that should be asked in communication planning meeting (p. 21).

The above eight characteristics are among the qualities that are believed to make a health communication effective.

2.3.3 Roles of Health Communication

"Communication with the public, stakeholders, within the health system, schools, and numerous others during a public health emergency is critical to managing any crisis." Before an outbreak, communication is aimed at educating, informing, advocating, preparing and preventing. In addition to this, at the time of an outbreak communication serves "to communicate with the public in ways that build, maintain or restore trust. This is true across cultures, political systems and level of country development" (PAHO, 2009, p .3).

Whether it is during an outbreak or before, there are things that health communication can and cannot do. Some among which Schiavo (2007) lists are presented below. Health communication can help raise awareness of health issues to drive policy or practice changes; influence perceptions, beliefs, and attitudes that may change social norms; promote data and emerging issues to establish new standards of care; increase demand for health services and products; show

benefits of behavior change; demonstrate healthy skills; provoke public discussion to drive diseases diagnosis, treatment, or prevention; suggest and prompt action; build constituencies to support health practice changes; support the need for additional funds for medical and scientific discovery; create a climate of receptivity for new health services or products; and strengthen third-party relationships (p. 27).

Having all the capacities stated above, health communication can convey at least the following three types of messages in relation to disease prevention and control.

a. **Precaution advocacy ("Watch out!")**: making people alert to serious hazards when they are likely to happen.
b. **Outrage management ("Calm down!")**: reassuring among people about minor crisis when alarm is raised among them.
c. **Crisis communication ("We'll get through it together")**: advocating and guiding the ways through really serious epidemics (Perspective Vol.10, No.2, 2005, p. 5)

Whatever the case and the message, the communication, as has been discussed in 2.3.2. above, needs to be creative to be multi – channeled, and media and audience specific to get the message across to the target audience accurately and thereby achieve its goal. Some of these channels and their possible contribution in health communication are presented in the following subparts.

2.3.3.1 Interpersonal Channels

Interpersonal communications involving groups like physicians, friends, family members, counselors, parents, clergy, and coaches of the target audiences can make health messages be presented in a familiar way. Such kinds of channels are more trusted and influential than mass media sources. Through producing messages, materials and links for interpersonal channels is

time consuming, the channels are the most effective especially in affecting attitudes, skills and behavior. The influence is believed to be more when the audience is already familiar to the topic, for example, by hearing it from mass media exposure (NCI, 2002, p. 28). FAO's Round Table Report (2005) indicates that interpersonal communication has more effect over mass media when it comes to development communication. Similarly, Backe and others (1992) as quoted in Temsegen(2007), explain that though the mass media can provide the public with service announcements, their achievement in changing behavior is less than that of interpersonal communications (p. 14).

Servaes (2002) reinforces this idea by saying "Mass communication is important in spreading awareness of new possibilities and practices, but at the stage at which decisions are being made about whether to adopt or not to adopt, innovations personal communication is far more likely to be influential" (p. 23-24).

2.3.3.2 Group, Organizational and Community Channels

Groups are common at workplaces, in the community and everywhere people are present. "Organization and community groups, such as advocacy groups" and other groups like neighborhood gatherings, classroom activities and club meetings can help the health communication program by making the messages "more easily reach more of the intended audience, retaining some of the influence of interpersonal channels" or by including them "in their newsletters and other materials, hold events, and often instructions related to the messages" (NCI, 2002, p. 29-30).

Schiavo (2007) quotes Babalola (2001) to another reason why reliance on organizational and community groups' channel will be vital. "Achieving health outcomes by communicating ideas

about health and behavioral and social issues connected to health is a long and difficult process. However, using a peer - to - peer approach, such as relying on credible community members, to diffuse new ideas and prompt action may shorten this process" (p. 157).

2.3.3.3 Mass media Channels

Different communication theories, which came recently, emphasize that the role of mass media is limited to raising awareness among the intended audience (Rogers, 1962 &1983; Rogers & Shoemaker, 1973; Severin & Thankard, 1979; Schiavo, 2007).

Mass media channels; whether radio or network and cable television, magazine or newspaper , billboards or transit cards, create a good opportunity for the health messages by including them in news, entertainment programs, public affair programs, talk shows (and even radio audience call-ins), editorials, different columns or advertising (NCI, 2002, p. 30).

Though media campaigns are proved to be effective in raising awareness, stimulating the intended audience to seek information and services, increasing knowledge, and changing attitudes and even achieving some change (usually) in self-reported behavioral intentions and behaviors, usually behavioral change is attached to long-term multi-channeled communication than "one – time" media programs (Ibid.).

2.4. Communication Theories applicable in Bringing Behavioral Change of Hygiene and sanitation Habits

Being a multidisciplinary field, health communications is not dominated by any single theory. This can also be attributed to the variances in the health problems, populations, cultures and contexts that are dealt with by health communication. As a result, many health communication

programs become successful by implementing combinations of theories that address the particular problem (NCI, 2002, p.7). In addition to this, health behavior change brings in notions of psychology and makes the diversity of the theories so wide.

Researches guided by various psychosocial theories of health behavior have added to the understanding of how cognitive and social factors contribute to human health and disease. Among these various approaches are the Health Belief Model (HBM) (Becker, 1974; Rosenstock, 1974), Social Cognitive Theory (SCT) (Bandura, 1986, 1997), the theories of reasoned action (Ajzen & Fishbein, 1980), planned behavior (Ajzen, 1991) and protection motivation (Rogers, 1983).

In this paper, the researcher prefers to see health promotion and health prevention from the perspective of Social Cognitive Theory (SCT) for the theory posits a multifaceted causal structure in which self-efficacy beliefs operate in concert with cognized goals, outcome expectations, and perceived environmental impediments and facilitators in the regulation of human motivation, action, and well-being. This approach of the theory, as Bandura (1998) argues, addresses the socio-cultural determinants of health as well as the personal determinants. The factor singled out in the various theories overlap with subsets of determinants in Social Cognitive Theory. It is acknowledged that these theories differ in their specified range of application. However, they are applied to a variety of health behaviors. SCT in its totality specifies factors governing the acquisition of competencies that can profoundly affect physical and emotional well-being as well as the self-regulation of health habits (Ibid).

2.4.1 Overview of Social Cognitive Theory

In recent years, we have witnessed major changes in the conceptions of human health and illness from the disease model, to a health model. The health model, therefore, focuses on health promotion as well as disease prevention. Lifestyle habits exert a major impact on the quality of human health. Current health practices focus mainly on the supply side by reducing, rationing, and curtailing access to health care services to contain health costs. The social cognitive approach works on the demand side by helping people to stay healthy through good self-management of health habits. By exercising control over several habits people can live longer, healthier, and slow the process of biological aging (Bandura 1997; Bortz, 1982; Fries, et al., 1993; Fries, 1997). As health economists amply document, medical care cannot substitute for healthful habits and environmental conditions (Fuchs, 1974; Lindsay, 1980). Nowadays, it is widely believed that self-management of habits enhances health and reduction of those that impair it is good medicine. Indeed, if the huge benefits of a few key lifestyle habits were put into a pill, it would be declared a spectacular medicine. As he tries to verify his theory, Bandura (1998) claims that:

> [t]he proliferation of conceptual models of health behavior tends to spawn cafeteria style research. Constructs are picked from various theories and strung together in the name of theoretical integration. This practice multiplies predictors needlessly in several ways. Similar factors, but given different names, are included in new conglomerates as though they were entirely different determinants. Facets of a higher-order construct are split into seemingly different determinants, as when different forms of anticipated outcomes of behavioral change are included as different constructs under the

> names of attitudes, normative influences, and outcome expectations. Following the timeless dictum that, the more the better, some researchers overload their studies with a host of factors that contribute only trivially to health habits because of redundancy. There is a marked difference between expanding the scope of an integrative theory and creating conglomerates from different theories with problems of redundancy and fractionation of predictors and theoretical disconnectedness (p. 2).

Bandura (1997) argues that he presented the SCT in response to his dissatisfaction with the principles of behaviorism and psychoanalysis, for in these two theories, the role of cognition in motivation and role of the situation are largely ignored (as cited in Redmond, 2010). Nevid (2009) states that SCT illustrates how individuals do not simply respond to environmental influences, but actively seek and interpret information (http://books.google.com/books?id=LsVK0kSpzx8C). Individuals "function as contributors to their own motivation, behavior, and development within a network of reciprocally interacting influences" (Bandura, 1999, p. 169). Although SCT covers many topics, such as moral judgment and psychological arousal, most researches are primarily focused on self-efficacy, which is known to be beliefs regarding one's capabilities of successfully completing tasks or goal (Locke & Latham, 2002). According to Bandura (2005), SCT takes on an agentic perspective to change, development and adaptation. Bandura describes an agent as someone who intentionally influences one's functioning and life circumstances; "[i]n this view, people are self organizing, proactive, self-regulating, and self reflecting. They are contributors to their life circumstances, not just products of them" (p. 1).

SCT emphasizes how personal (like cognitive, affective, or biological events), behavioral, and environmental factors interact to determine motivation and behavior (Crothers, Hughes, & Morine, 2008). The same authors mention that Bandura argues that human functioning is the result of the interaction of all three of these factors, as embodied in his Triadic Reciprocal Determinism model. For example, employee performances (behavioral factors) are influenced by how the workers themselves are affected (personal factors) by organizational strategies (environmental factors). The figure below illustrates Triadic Reciprocal Determinism as portrayed by Wood and Bandura (1989).

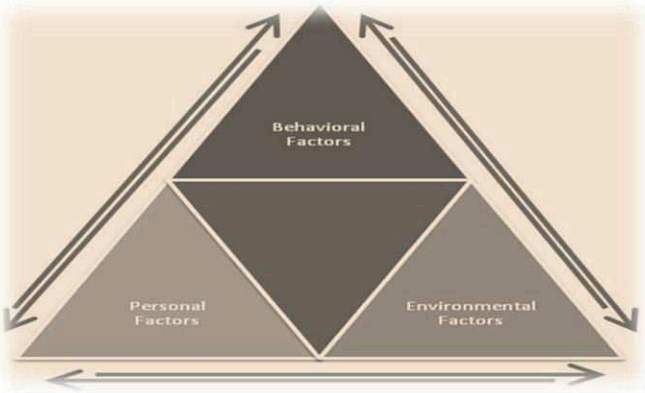

Figure 1 Bandura's Triadic Reciprocal Determinism model

2.4.2 Goal Realization in SCT

The SCT is composed of four processes of goal realization: self-observation, self-evaluation, self-reaction, and self-efficacy. These components are interrelated and each has an effect on motivation and goal attainment (Redmond, 2010).

A. Self-observation: Observing oneself can inform and motivate. It can be used to assess one's progress toward goal attainment as well as motivate behavioral changes. There are two important factors with regards to self-observation: regularity and proximity. Regularity means

the behavior should be continually observed whereas proximity means the behavior should be observed while it occurs, or shortly after. Alone, self-observation is insufficient because motivation depends on one's expectations of outcomes and efficacy (Zimmerman & Schunk, 2001).

B. Self-evaluation: Self-evaluation compares an individual's current performance with a desired performance or goal. It is affected by the standards set and the importance of the goals. Goals must be specific and important to be clearly understood and therefore to motivate. Schunk and Zimmerman (1994) state "specific goals specify the amount of effort required for success and boost self-efficacy because progress is easy to gauge" (p. 98). If one has little regard for their goal, they will not evaluate performance. There are two types of self-evaluation standards: absolute and normative. For example, a grading scale would be an example of a fixed or absolute standard. A social comparison such as evaluating one's behavior or performance against other individuals is an example of a normative standard (Schunk and Zimmerman, 2001). People gain satisfaction when they achieve goals that they value. When individuals achieve these goals, they are more likely to continue to make every effort, since substandard performance will no longer provide satisfaction (Bandura, 1989).

C. Self-reaction: Reaction to one's performance can be motivating. As Bandura (1989) states it clearly, if progress is believed to be acceptable, then one will have a feeling of self-efficacy with regards to continuing, and will be motivated towards the achievement of their goal. A negative self-evaluation may also be motivating in that one may desire to work harder providing that they consider the goals as valuable. Self-reaction also allows a person to re-evaluate their goals in conjunction with their attainment (p. 21). This can be simplified as if a person has achieved a goal, they are likely to re-evaluate and raise the standard (goal) whereas, if

a person has not achieved the goal they are likely to re-evaluate and lower the standard (goal) to an achievable goal.

D. Self-efficacy: One's belief in the likelihood of goal completion can be motivating in itself (Van der Bijl & Shortridge-Bagget, 2002). "Self-efficacy refers to people's judgment about their capability to perform particular tasks. Task-related self-efficacy increases the effort and persistence towards challenging tasks, and therefore increases the likelihood that they will be completed" (Barling & Beattie, 1983, as cited in Axtell & Parker, 2003, p. 114).

When we see this from the angle of health promotion, if people lack awareness of how their life style and habits affect their health, they will have little reason to put themselves through the misery of changing the bad habits they enjoy. Thus, Bandura (1997) says, applications of theories of health behavior have tended to assume adequate knowledge of health risks. It is usually high as knowledge creates the precondition for change. But additional self-influences are needed to overcome the impediments to adopting new lifestyle habits and maintaining them. So, beliefs of personal efficacy occupy a pivotal regulative role in the causal structure of SCT. Taking this into account, self-efficacy is separately discussed below.

2.4.3 Self-efficacy

Albert Bandura's concept of self-efficacy was developed as part of a larger theory, the Social Learning Theory (Ashford & LeCroy, 2010), which has progressed into the SCT (Levin, Culkin, & Perrotto, 2001). Regarding self-efficacy, Bandura (1995) explains that it "refers to beliefs in one's capabilities to organize and execute the courses of action required to manage prospective situations" (p. 2). More simply, self-efficacy is what an individual believes s/he can accomplish using her/his skills under certain circumstances (Snyder & Lopez, 2007). The basic principle

behind self-efficacy is that individuals are more likely to engage in activities they have high self-efficacy for and less likely to engage in those they do not (Van der Bijl & Shortridge-Baggett, 2002). According to Gecas (2004), people behave the way that executes their initial beliefs; thus, self-efficacy functions as a self-fulfilling prophecy.

Bijl & Baggett (2002) discuss that judgments of self-efficacy are generally measured along two basic scales: magnitude and strength. Self-efficacy magnitude measures the difficulty level (e.g. easy, moderate, and hard) an individual feels is required to perform a certain task. Questions like 'How difficult is the task?' 'Are they easy or hard?' may be raised to judge the magnitude. Self-efficacy strength refers to the amount of conviction an individual has about performing successfully at diverse levels of difficulty. Questions such as 'How confident am I that I can excel at my tasks?' or 'How sure am I that I can climb the ladder of success?' can help measure the strength.

The underlying idea in the concept of self-efficacy is that the performance and motivation are in part determined by how effective people believe they can be (Bandura, 1982; as cited in Redmond 2010). Bandura (1977) outlined four sources of information that individuals employ to judge their efficacy: performance outcomes (performance accomplishments), vicarious experiences, verbal persuasion, and physiological feedback (emotional arousal). These components help individuals to determine if they believe they have the capability to accomplish specific tasks. In support of this thought, Williams and Williams (2010) testify that "individuals with high levels of self-efficacy approach difficult tasks as challenges to master rather than as threats to be avoided" (p. 455).

A. Performance Outcomes: positive and negative experiences can influence the ability of an individual to perform a given task. If one has performed well at a task previously, s/he is more likely to feel competent and perform well at a similarly associated task (Bandura, 1977). The individual's self-efficacy will be high in that given area, and since s/he has a high self-efficacy, s/he is more likely to try harder and complete the task with much better results. The opposite is also true. If an individual experiences a failure, self-efficacy is likely to be reduced. However, if these failures are later overcome by passion, it can serve to increase self-motivated persistence and the situation is viewed as an achievable challenge (Bandura, 1977).

B. Vicarious Experiences: People can develop high or low self-efficacy vicariously through other people's performances. A person can watch another perform and then compare her/his competence with the other's competence. If a person sees someone similar to him/her succeed, it can increase their self-efficacy. However, the opposite is also true; seeing someone similar fail can lower self-efficacy (Bandura, 1977).

C. Verbal Persuasion: According to Redmond (2010), self-efficacy is also influenced by encouragement pertaining to an individual's performance or ability to perform. Using verbal persuasion in a positive light leads individual's to put forth more effort; therefore, they have a greater chance at succeeding. However, if the verbal persuasion is negative, it can lead to doubts about oneself resulting in lower chances of success. Also, the level of credibility of the persuader directly influences the effectiveness of the verbal persuasion; where there is more credibility there will be greater influence. Although verbal persuasion is also likely to be a weaker source of self-efficacy beliefs than performance outcomes, it is widely used because of its ease and ready availability (Redmond, 2010).

D. **Physiological Feedback (Emotional Arousal):** People experience sensation from their body and how they perceive these emotional arousals influence their beliefs of efficacy (Bandura, 1977). For example, physiological feedbacks like agitation, anxiety, sweaty palms, and/or a racing heart can be caused from giving a speech in front of a large group of people, making a presentation to an important client, taking an exam, etc. Such feedbacks may influence self-efficacy (Redmond 2010). Although this source appears to be the least influential of the four, it is important to note that if one is more at ease with the task at hand they will feel more capable and have higher beliefs of self-efficacy.

2.4.4 Attributes of Self-efficacy and Social Cognitive Theory

A. Constructive Attributes:

When faced with a difficult task, people who have high self efficacy will face the challenge as something to be learned and mastered. Their interest and motivation in mastering the task will drive them to succeed in their difficult, yet approachable goal (Pajares & Schunk, 2001). While striving to complete a challenging task or difficult goal, individuals with high self-efficacy may face failures or setbacks, but they will not give up. Where people with low self-efficacy may decide the task is impossible, people with high self-efficacy strive to develop a higher amount of knowledge and increase their effort in order to overcome their failures (Pajares & Schunk, 2001). Bandura (1995) also supports this idea of Pajares and Schunk by discussing that people with high self-efficacy are more likely to set more challenging goals for themselves and be more committed to the goal, which enhances self-efficacy. Researches have also demonstrated the positive effects of self-efficacy beliefs on effort, persistence, goal setting, and performance, for example Pajares (2009).

B. Potential Detrimental Attributes:

Some researchers indicate that very high self-efficacy can sometimes lead to degradation in performance of a particular task. This is because high self-efficacy can lead to overconfidence in one's aptitude, which creates a false sense of ability. Overconfidence can lead to employing the wrong strategy, making mistakes, refusal to take responsibility for mistakes, and rejecting corrective feedback (Clark, 2001). Overconfidence can also result in lower effort and attention being devoted to the task (Stone, 1994). In addition, verbal and tangible rewards can have both positive and negative effects on self-efficacy depending on the context and environment in which the reward or praise is delivered (Manderlink & Harackiewicz, 1984).

2.4.5 Criticism of Self-efficacy

Eastman and Marzillier (1984) outlined three main criticisms to Bandura's concept of self-efficacy. The first was ambiguity and lack of definition in self-efficacy. The second included methodological deficiencies which could cast doubt on the "published relationship between the empirical findings and self-efficacy." The third stated that claims and conclusions made by Bandura were not adequately evaluated, and more precise definitions and modification of assessment procedures are needed.

In regards to the conceptual problems of self-efficacy, it was thought that "efficacy expectations were definite in such a way that included within them expectations of outcome, and thus could not be regarded as conceptually distinct" (Eastman & Marzillier, 1984). Bandura (1978) has sought to make a distinction between self-efficacy and outcomes but others found some of his statements to be misleading in this regard. One specific statement, "the conviction that one can successfully execute the behavior to produce the outcomes," was the focus of much criticism and

debate over the true difference between outcomes and efficacy. Kazdin (1978) found the concepts of self-efficacy and outcome expectations to be very closely related". Bandura (1978) replies to this criticism by stating that the outcomes are conditional upon the behavior and that the critics were "misreading the definition of efficacy".

The scale used in Bandura's (1978) experiment studies is further subject to criticism. The scale provided to Eastman and Marzillier by Bandura is shown below:

"Rate your degree of confidence by recording a number from 10 – 100 using the scale given below:

10	20	30	40	50	60	70	80	90	100
quite uncertain				moderately certain					certain

Remember; rate what you would expect you could do and your confidence if you were asked to perform the tasks now" (Eastman & Marzillier, 1984).

This scale was criticized for two main reasons. The first is that the scale is not clear and a 10 can be interpreted at varied levels. While one may consider a 10 to be very uncertain, another may interpret it as "virtually impossible." A second criticism was the use of a 100 point probability scale with the ability to only select between 10 possible numbers. While there is no zero on the scale, the scale also does not allow for numbers between the numbers listed on the scale which can account for the large difference on a 100 point probability scale (Ibid).

Further criticism of self-efficacy provided that it is, "impossible to exclude outcome considerations from efficacy expectations." It is human nature to be aware and concerned with

the outcomes in performing a task. While Bandura's studies focused on discreet tasks, the applications for self-efficacy move beyond discreet tasks with limited outcomes. While critics of Bandura and self-efficacy agree that there is value in his experiments, it is doubted that self-efficacy and outcomes can be limited and distinction on a larger scale or in application of the theory (Ibid).

Despite the critics, it is these days taken for granted that efficacy belief is a major basis of action. Unless people believe they can produce desired effects by their actions, they have little incentive to act or to persevere in the face of difficulties and setbacks. Whatever else may serve as motivation, they must be founded on the belief that one has the power to produce desired changes by one's actions, especially in regard to health behaviors. Exercise of control requires not only skills, but a strong sense of efficacy to use them effectively and consistently under difficult circumstances. Efficacy beliefs not only operate in their own right. They act on other determinants in the regulation of behavior (Bandura, 1997). As Bandura (1998) states it, belief is one's learning efficacy and efficient deployment of effort enhance acquisition of knowledge and skills for managing the demands of everyday life (Bandura, 1998, p. 3).

Therefore, this research attempts to measure the effectiveness of the communication strategies used in the UHEP in building the self-efficacy of the subjects of the study in order to bring behavioral change in the habits of hygiene and sanitation and thereby assess how much the program is capable of enhancing the acquisition of knowledge of disease prevention among the Woreda's dwellers.

CHAPTER THREE

Research Methodology

3.1. Introduction

This study attempted to explore the health communication strategies employed in the UHEP in Addis Ababa and the effects they have on the hygiene and sanitation habits of the dwellers. The research site (Woreda 01 in Lideta Sub-city) was deliberately chosen as it covers a wide area of land, 273.6 hectares, which makes it the widest in the sub-city covering the 29.8%. The sub-city is one of the densely populated sub-cities of Addis Ababa. The Woreda is also very densely populated with 21,417 people (FEDB, 2009, p. 42). As the large portion of the Woreda is taken by public institutions like the MoND, Schools, Woreda Administration buildings, and other private organizations, the space left for residence has become very limited that makes the Woreda highly congested. This is believed to be able to represent the conditions of poor hygiene and sanitation in the city.

3.2. Study Design

The study used the blend of the two research designs; the qualitative and quantitative designs just to implement the former with the latter, and narrow the gap that could have been created had only one of the designs been employed.

Among the two designs, this study preferred to depend more on the qualitative one because the study will be more of explanatory. According to Holland and Campbell (2005) "While quantitative research prioritizes deceptive, analytical breadth of coverage, qualitative research is noted, above all for its explanatory power and for the richness and depth of information it

generates. Rather than standardizing to describe the norm, qualitative research seeks to explain differences" (p. 5).

3.3. Justification for Employing Qualitative Method

Any research method falls into either of the categories: quantitative or qualitative. These, especially in social studies have their own merits and demerits (Bryman, 1988, p. 1). Though it has been changed in times, one of the differences between the research methods is their method of data gathering. Describing this Bryman (1988) states that "'quantitative research' and 'qualitative research' came to signify much more than ways of gathering data; they came to denote divergent assumptions about the nature and purposes of research in the social sciences" (p. 3).

> In qualitative research, one interviews people to understand their perspectives on a scene, to retrieve experiences from the past, to gain expert insight or information, to obtain descriptions of events or scenes that are normally unavailable for observation, to foster trust, to understand a sensitive or intimate relationship, to analyze certain kinds of discourse (Lindlof, 1995, p. 5).

Since this study focuses on evaluating the behavioral change that the health communication brought to the study groups, it will be very suitable to employ the qualitative research method for it.

Moreover, Bryman (2004) describes qualitative research method as a method that "usually emphasizes words rather than quantification in the collection and analysis of data" and is inductivist as a research strategy (p. 266).

The nature of this study justifies utmost the need to use qualitative research approach than quantitative. In order to support this point, Natifu (2006) states that research is a means of investigation in which appropriate methodology should be utilized to answer specific questions, drawing on the strengths and weaknesses of a range of approaches. Similarly, an exploratory study like this one is most likely to be effective if employed qualitative approach both for data collection and analysis than the quantitative.

Other natures of the qualitative research method that justify the rightness of it to this study are mentioned in Denzin and others (1998), to distinguish it from the quantitative. With qualitative research…

- Research is conducted in the natural setting of social actors.
- The actor's perspective (the "insider" or "emic" view) is emphasized.
- The primary aim is in-depth ("thick") descriptions and understanding of actions and events.
- The main concern is to understand social actions in terms of its specific context (idiographic motive) rather than attempting to generalize to some theoretical population (p. 270).

These natures of the qualitative study are much relevant to this particular research as it used the natural setting to observe the problem from the point-of-view of the participants by employing data collection methods that enabled to gather thick information in order to understand the situation in the specific social context. So the study used data collected from primary and secondary sources through scrutinizing the materials produced to address the target audience of the program with sanitation and hygiene issues, observing the process and way of training the

model families, and by conducting in-depth interviews, observation and questionnaires to see the difference made in habits of hygiene and sanitation in the course of the implementation of the UHEP in Addis Ababa.

With respect to using the quantitative method, quantification of simple statistics such as frequency distributions that can show the magnitude of change in behavior were used. It is believed that this choice of design has maximized the credibility of the findings of this research through exploiting both the approaches.

3.4. Data collection Techniques

In this research, attempts are made to vary the techniques of data collection. Therefore, the researcher has tried to closely study the materials, like brochures, posters and methods like practical demonstrations that the HEWs and the Woreda Health Bureau use to transmit messages aimed at changing the behavior of their target audience to healthy hygiene and sanitation habits. In addition to this, in-depth individual interviews were carried out with experts like HEWs, and officials who participate in the health communication program to see to the strategies they have been using in the program. Moreover, the researcher has attempted to visit and make a participant observation on some indicators of healthy habits of hygiene and sanitation with the help of a check-list developed beforehand. Another technique to be used was a questionnaire that randomly selected respondents among the model families in Woreda filled out.

Denzin (1989), as quoted in Frey (1994), states that many researchers tend to use multi-method approaches to achieve broader and often better results – a method referred to as "triangulation" (p. 373). Discussing the necessity of triangulation, Jankowski and Jansen (1991) say that the

"weaknesses in each single method will be compensated by counter-balancing strengths of another". This can definitely show how the use of multiple methods helps this research to make a plausible conclusion.

3.4.1. Document Analysis

As one of the objectives of this study is declared to be finding out the communication strategies employed by the UHEP, the researcher has tried to closely study the materials that the HEWs use to train the model families. In this attempt, documents of the Health Policy, HSDP, PASDEP, NHCS, different HEP manuals, handouts, brochures, posters, and banners developed by the Woreda administration were scrutinized. Since the handouts and brochures are mostly derived from the HEP Manuals published by the FMoH, it was necessary to evaluate the same manuals to check whether they were in compliance to the eight characteristics of health communication discussed under part 2.3.2 of this paper and other features of health communication. The collection of data from secondary sources has also been used to measure the magnitude to which the messages could build the target audience's self-efficacy and thereby change their behavior.

3.4.2. In-depth Individual Interview

One of the techniques used in this study was in-depth individual interview. The interviews were semi-structured so as to let the interviewees express their thoughts and views using the few pre-listed questions as elements to guide the course of interview to only relevant points and prevent the data become forest of information.

Bryman (2004) makes the following statement while discussing the advantage of semi-structured interview.

> Semi-structured interview covers a wide range of types. It typically refers to a context in which the interviewer has a series of questions that are in the general form of interview guide but is able to vary the sequence of questions. The questions are frequently somewhat more general in their frame of reference from that typically found in a structured interview schedule (p.543).

In order to make the interviews and the data consistent and complete the questions were designed to be open ended so that they allow large amount of discussion and dialogue between the interviewer and the interviewees. The data were also recorded (in audio and video) in order not to interrupt the course of interview for note taking and to preserve the discussions more perfectly.

3.4.3. Participant Observation

Deacon and others (1999) suggest that observation is a very important technique in a qualitative research, especially for studying mass-communication (pp. 248 & 249). Since the term 'observation' is ambiguous and misused in different researches the same writers have loosely classified it into "three broad types: simple observation, participant observation and ethnography" (p. 250).

As quoted in Temesgen (2007), Gray (2004) states that participant observation "is not simply a question of looking at something and then noting down the 'facts'". However, it is "a complex combination of sensation (sight, sound, touch, smell and even taste) and perception" (p. 34). Deacon and others (1999) also support this idea by explaining that participant observation is not

just “being a ‘fly on the wall’”, in which the participant has no relationship with the process or people being observed, who remain unaware of the researcher’s activities (p. 250). These indicate that a careful and systematic viewing of people’s acts and behaviors either overtly or covertly can help to keep record of the observed elements and analyze them.

In this research also, apart from the intentional observation to be made during the interviews and the dissemination and collection of questionnaires, a deliberate and overtly conducted visit was made to observe the techniques and strategies of communication, and the sanitation and hygiene facilities and the conditions of households taken as samples that manifest the habits of hygiene and sanitation. Notes about the observation were taken with the help of a check-list prepared for the same purpose and some are recorded in still and movie pictures. This is believed to create a favorable condition for subjective understanding, seeing the unseen by being there at the spot and making the data deep and full of texture.

3.4.4. Questionnaire

According to Hansen and others (1998), questionnaires are basic tools (especially when they are standardized and well organized) employed in surveys that can be used “to collect data about current attitudes and opinions.” This does not mean that they are restricted to the collection of information. Equally important, they are “useful method(s) for finding out individual opinions, attitudes, behavior and so on towards a whole range of topics and issues” (p. 225).

Based on this thought, a questionnaire was distributed among the target audience of the UHEP (in fact to the sample) to survey their perceptions of the health communication messages disseminated to them as part of the UHEP’s health promotion; the impact the messages probably

have on the lives of the target audiences and the changes they brought in the habits of hygiene and sanitation of the audience. Model questionnaires with standardized format were reviewed from different sources to develop the questionnaire.

The questionnaire had both open ended and close-ended questions so that the close-ended questions assist to collect factual data from the options given in likert scale whereas the open ended questions help to find the respondent's opinions at length.

Towards the end of the questionnaire, it has been attempted to include a part which enabled to measure the respondents' (that are models trained in the UHEP) level of self-efficacy. This is done by directly translating the English version of an interesting measurement of self-efficacy originated by Schwarzer and Jerusalem (1995), the Generalized Self-Efficacy scale (GSE) into Amharic and contextualizing it to hygiene and sanitation issues. The purpose of the GSE is to measure confidence in goal setting, effort, and persistence. Therefore the researcher has tried to make a good use of it.

3.5. Data Processing and Presentation

All the data that were collected from the study units in any form of qualitative data collection techniques employed were first transcribed since the majority of data were video and audio tape-recorded. Then, the relevant data were categorized so as to make them convenient for analysis. The categorization was normally made based on their relevance to the central ideas of the research questions raised in this study.

The data collected with the help of the questionnaire filled out by the models and the checklist used during the participant observation had to be tallied and tabulated so as to use them in a very handy

way while writing the analysis. However, some of the data, which had no any contribution to this study, were simply discarded. Finally, the transcribed materials were translated into English. In doing so, the data were thoroughly presented in the way that they could be used for careful data analysis.

3.6. Summary

In this chapter, the research design chosen for this particular research and the justification of the choice is discussed. Moreover, the data collection techniques that were used in an appropriate way to the research design are presented. The use of these techniques has made it possible to collect quality data that significantly contributed to finding responses to the central questions raised in this study.

The chapter also indicated that use of multi methods or triangulation is an imperative in qualitative research like this one. This is because it helps to eliminate biases that could arise from a single methodology and to ensure reliable research findings.

Finally, this described how the data collected were processed and presented. The proceeding chapter makes use of qualitative data presentation and analysis to come up with specific findings.

CHAPTER FOUR

Data Presentation and Analysis

4.1 Introduction

This chapter attempts to present and analyze the data collected and relate them to the theory discussed in the second chapter of this paper. At the same time, the data is analyzed in association with the research questions raised at the beginning.

The center of focus of the presentation and analysis of data, this being the main objectives of the study, are pieces of information only that are directly related to the communication strategies employed by the AAHB in the UHEP to bring behavioral change in the habits of hygiene and sanitations.

The data, as has been discussed in the previous chapter, are gathered from two kinds of sources – secondary and primary sources – through four methods: documents analysis, participant's observation, in-depth interviews, and questionnaires filled out by model families. This blend of methods was deliberately preferred to triangulate them and, thereby, seal the gap that would have been appeared had only a single method was chosen. It also increases the reliability of the findings.

In terms of organization, this chapter is put into four subparts. Following the first part, the introduction, the communication strategies that the AAHB developed to enhance the community's hygiene and sanitation habits are discussed. In the third subpart, the effectiveness of these approaches in boosting the self-efficacy that the target audience needs to develop a healthy habit of hygiene and sanitation is explored. The last one, the fourth subpart, will deal

with findings about the effectiveness of the communication strategies the UHEP used to achieve the expected outcome in habits of hygiene and sanitation.

4.2 Communication Strategies Employed to Enhance the Community's Hygiene and Sanitation Habits

4.2.1 Interpersonal Channel

Interpersonal communication is the most interactive type of communication that engages both the sender and the receiver in a relatively open, credible, prompt and complete process of message sending and reception. Whenever involved in an interpersonal communication, one seeks and gives off information through a wide variety of verbal and non-verbal codes; such a communication keeps both the parties active.

In this regard the UHEP, according to the HEWs the researcher interviewed and what has been observed, has highly depended on interpersonal communication to convey messages through to the target audience.

The trainings provided to the model families, on classroom-base during the 1st to 3rd rounds and house – to – house in the 4th round, by the HEWs were usually carried out using face – to – face discussions on the packages. The HEWs impart their lessons to the family members – usually individuals representing their families – on the necessities of behavioral change in hygiene and sanitation. The trainees also share the views of the HEWs on the difficulties and drawbacks they encountered in their families and villages. Not only during the training, but also while the HEWs and their supervisors visit the model families for monitoring purposes or refreshment sessions, the major communication strategy they use is interpersonal communication (found from in-depth interviews and observation). "The major communication strategy the UHEP relies

on and the one our HEWs got it to be handy to use to transmit their messages of the Hygiene and Sanitation Package is face – to – face communication." (Woreda 1 UHEP Supervisor). The supervisor further explains that the HEWs, during their door – to – door training sessions and visits, encourage inter-family discussions and experience sharing though they have hardly succeeded.

A model who has been trained in the 2nd round also comments that she has gained good knowledge from the interpersonal communication she had with her coach (the HEW) during the training sessions and the visits she was paid. "Communicating interpersonally, had given us the opportunity to raise the questions we had", she states. The HEW also supports this idea and says, "Interpersonal communication helped us also to observe the reactions of the models and see the understandings and differences they developed."

Putting these together, it seemed crystal that the interviewed experts and the models observed were in a way satisfied in the interpersonal communication. 293 (97.72%) of the 300 respondents who filled out the questionnaire, also admitted that the interpersonal communication has significantly contributed to enhance their awareness in areas of healthy habits of hygiene and sanitation.

What has been discussed in the theoretical part of this study is also in compliance with this finding. Interpersonal communication is advantageous over mass or public communication in influencing peoples' behavior.

Though it can be clearly seen that interpersonal communication is exploited as a strategy, the trainer – learner approach followed might have restricted the outcomes to only raising the

awareness of the target audience rather than gearing them towards behavioral change. An HEW testifies this by saying, "All the models can preach even us, their trainers, however when it comes to change in behavior, we find them where they were". Her comment implies that peer – to – peer and inter-family communications should have been emphasized if change was desired.

4.2.2 Mass Media Channels

Mass media channels are labeled to be limited to creating awareness among the target audience, as mentioned in Chapter Two. Despite this fact, many health communication programs tend to make use of mass media to convey health related and behavioral change issues. The UHEP also plans to benefit from the advantages of mass media (FMoH, 2009, p.31). Therefore, AAHB sponsors and facilitates the airing and publication of heath related messages on local and national media in addition to the news, talk shows, advertisements and other ways transmitted by the initiatives of the media houses themselves.

Moreover, the billboards seen in various corners of the metropolis, posters and banners posted around public organizations and health centers and brochures and fliers published and disseminated by the city's administrative and heath sectors are conveying messages of the UHEP.

According to the HEWs and supervisors who were interviewed, banners and posters carrying the UHEP messages are posted for the public's consumption in the Woreda while brochures and summarized handouts on the packages of the program are printed and used in the training and refreshment programs given to the model families.

A point that seeks emphasis, here, is the criteria of media selection. According to AED (1995), the selection of the best channel for communication should base itself, among many others, on the preference and access of the target audience to the channel, coverage of the channel, and cost. In this respect, these channels seem to be accessible to majority of the target audience. Out of the 300 models that filled out the questionnaire, 240, which make 80% of the total, are literate that they are able to read the messages incorporated in the print media in use. The HEWs have also showed a very high commitment to reach the printed materials to their audiences, as they said during the interviews and seen in the participant observation.

Nonetheless, the Woreda Heath office Head claims that they have budget constraints to make the brochures and handouts self-explanatory and attractive. She says, "The Woreda has limited budget. The cost of publication, on the contrary, is continuously getting high. That is why our brochures and handouts remained dull, filled with text, and short of explanatory pictures." This indicates that cost was denied due attention even if it is one among the criteria to choose a channel.

In line with this, a model being trained in the 4th round complains that the brochures and handouts are difficult to comprehend as they are too brief and unattractive. This model, who is only a junior school graduate says, "I prefer to keep these publications aside and depend on the interpersonal communication I do with my trainer".

A UHEP supervisor at the Woreda also suggests that much has to be done in exploiting the capabilities of the broadcast media, radio and television, by the AAHB. He keeps on by saying, "our limited resources need to be complimented with video clips that aim to encourage

behavioral change in hygiene and sanitation. Such materials are easily consumable by both the literates and illiterates".

4.2.3 Demonstrations

Another communication strategy that the UHEP employed for the purpose of promoting behavioral change with regards to hygiene and sanitation is demonstration. As presented in part 2.2 of this paper, improved hygiene and sanitation can be gained by erecting physical and behavioral barriers to prevent transmission of diseases. Such barriers are also listed to be washing hands after defecation, using safe and clean toilets, assuring the cleanliness of water during collection and storage and disposing wastes properly.

The UHEP plans to build these barriers through the demonstration that the HEWs carry out to the model families (FMoH, 2009, p.28). So, the HEWs show and assist the model families how to keep their toilets clean and safe, they help them with preparing hand washing facilities around the toilets by using easily accessible materials, and they also train them in the ways of keeping the collection and storage of water clean and safe, and disposing wastes (liquid and dry) properly (Form in–depth interviews and observations).

The HEWs express that they can witness that the demonstrations that they carry out are fruitful in the cases where the model families own non-communal toilets and live in a separate compound. When these happen to be communal, people tend to be irresponsible to keep them clean and safe. One of the HEWs states during the interview, "Regarding sewerage, people prefer to be irresponsibly careless. They are used to spill liquid wastes in fields, on roads, and every open area. Even some people throw their garbage's in open or closed sewerage facilities

and block them". Some of the models contacted during the observation are seen complaining about such careless acts and taking them as excuses for not practicing what they are trained in.

4.3. Effectiveness of the Communication Strategies in Building the Models' Self-efficacy to Develop Healthy Behaviors

Self-efficacy, the core element in the SCT, is previously defined as one's belief in the likelihood to one's own goals (See part 2.4.2). Self-efficacy, one of the four goal realization processes making of SCT**,** is put at the heart of the theory, because without developing self-efficacy, the other three – self-observation, self-evaluation, and self-reaction – will remain meaningless. This is because without self-efficacy, as has been clearly put in the theoretical parts, it will be difficult to aspire for realizing the goals and change the unhealthy behaviors.

Based on Bandura's SCT**,** this study poses a question about to what level the health communication built its target audience's self-efficacy in achieving the goal of having healthy hygiene and sanitation habits. In fact, determining the level of one's own efficacy appears to be troublesome, let alone others'. However, Bandura (1977), as discussed in previous parts of this research, outlines four sources of information that can be employed to judge self-efficacy (See 2.4.3).

In the questionnaire the model families filled out, the last part is meant to evaluate the self-efficacy that the respondents have. As has been discussed in Chapter Three, this scale of measuring self-efficacy, the GSE, is translated in to Amharic to suit the particular purpose. The scoring is calculated by summing up responses made on 4-point scales to all the 10 questions to find the final figure ranging from 10 to 40. Accordingly, the scale gives the self-efficacy of the respondents 30 ranks, that can be categorized, for the sake of simplification, as 10-16 as very

low, 17-22 as low, 23-28 as average, 29-34 as high, and 35-40 as very high. The following figure shows the result of the self-efficacy measurement of the respondents in GSE scale.

As it can be clearly seen from the figure below, out of the 300 respondents, 106 (35.33%) have been found to be with an average level of self-efficacy (about 23 points) in developing healthy hygiene and sanitation habit. In fact this by itself may not be able to lead to a conclusion that the rest of the respondents have low and very low self-efficacy. However, the participant observation carried out on the previously trained models' villages and families is found to be in conformity with what is found out from the measurement with the GSE scale. Something that can be derived from this is that the models could show little behavioral change despite the vigorous attempts of the HEWs because of such low self-efficacy they have.

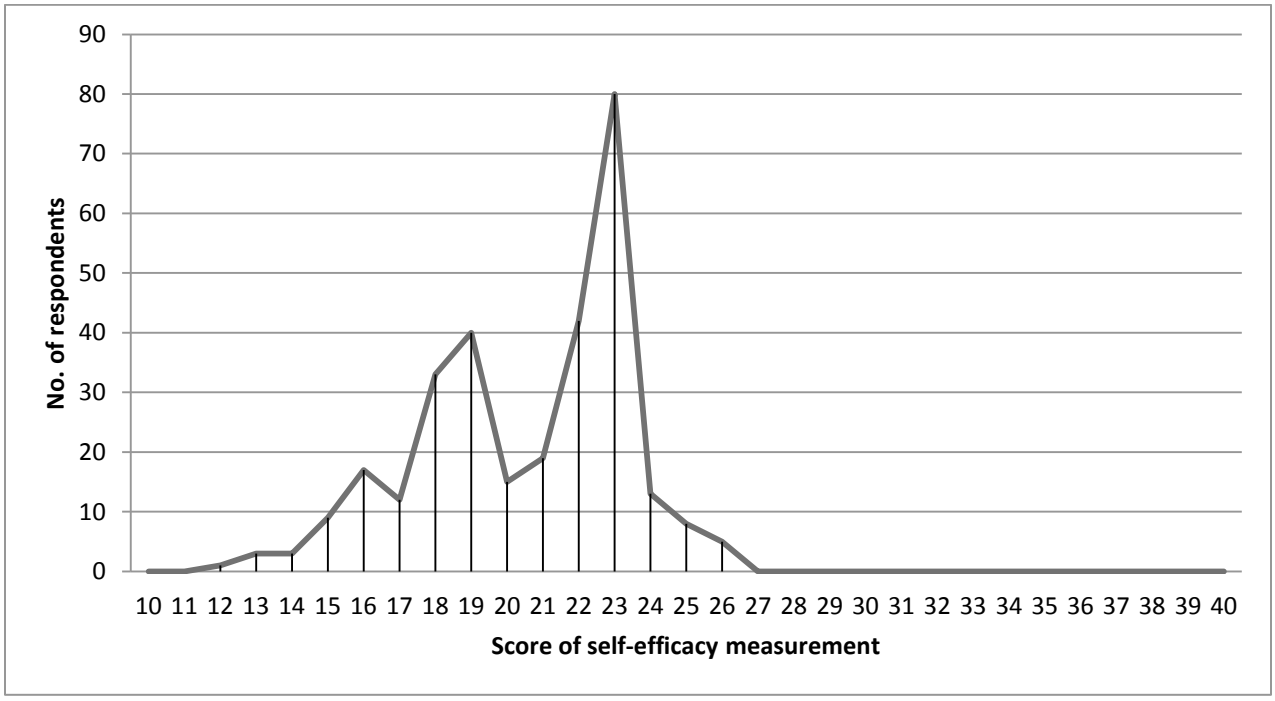

Figure 2. Scores of self-efficacy measurement of the respondents in GSE scale

Assisted by the points listed in the checklist, a participant observation was made on 20 households. The following summary has been acquired from the data collected with the help of the checklist.

A) Related to possession of clean and safe toilet, 2 households were found to own no any toilet; 13 toilets out of the 18 were found to be unclean and having smell and leakages; and 12 toilets do not have any hand – wash facility.

B) With regard to access to toilet, two families are found not to use any toilet among which one uses open areas, rivers, bushes, etc.

C) Related to water collection and storage methods, all the 20 households were seen not to avoid contacts of taps with hands; 12 households are seen to use jerry – cans to store water that do not allow easy and clean washing; and 13 families use the dip-method that ends up in contamination as hands enter the water.

D) In the view of waste management systems 9 families are found to spill out liquid waste into the open areas.

These findings indicate that it is not all the model families under observation that could develop the self–efficacy that might have led them to behavioral change in habits of hygiene and sanitation.

4.4. Effectiveness of the Communication Strategies in Achieving the Expected Outcomes

As it has been repeatedly mentioned in different parts of this paper, the UHEP has aimed at changing behaviors in relation to each package (See part 1.2). In order to achieve behavioral changes, which is the expected outcome of the program, the main task to be done must be

building the target audience's self-efficacy. Without high self-efficacy, as has been clearly put in the theoretical parts, it will be difficult to aspire for change in behavior. This implies that the effectiveness of the communication strategies shall be measured with the level to which they scaled the audience's self efficacy up.

4.4.1 Appropriateness of the Contents to Build Self-efficacy

As it could be found from the documents analyzed and the participant observations conducted during the data collection period, the messages developed for the Hygiene and Sanitation Package, like for all the other packages, are informative in nature. This shows that they are intended only to raise the target audience's awareness and increase their knowledge of hygiene and sanitation issues.

In fact, awareness and knowledge are compulsory for behavioral change; because, as has been said in the previous chapters, unless they are aware of their health risks, people will have little reason to put themselves in the melancholy of changing their habits. By gaining knowledge, the audience might climb up the ladder from the step of 'Preknowledgeable' up to 'intending' one (See part 2.3.2). The rest two steps (Practicing and Advocating), however, are only reached when the audience develops self-efficacy to change behavior. Therefore, the contents of the messages are found to lack the intent of building self-efficacy of the receivers.

The interviews and the participant observation could indicate that the models are knowledgeable of the health risks resulting from lack of hygiene and sanitation, and their solutions. Nevertheless, they happen to get discouraged by their neighbors who are not trained in the UHEP and even sometimes being overwhelmed by the unhealthy habits of these same neighbors. This

could be witnessed during the visits paid to the models' houses and from what the HEWs repeatedly raised during the in-depth interviews. One of the HEWs says, "A lot has to be done on behavioral change in addition to creating awareness of hygiene and sanitation issues. I, sometimes, feel desperate looking at models being not persistent in sticking to the healthy habits we taught them".

This, definitely, resulted from the contents of the messages which resemble lecture notes. Had the messages contained elements that could build the audience's self-efficacy, the result would have been a different one. Passing through the four goal realization processes of SCT and the self-efficacy judgment sources could have helped a lot if they were practiced during the training.

4.4.2 Appropriateness of the Approaches to Build Self-efficacy

The researcher could identify that the approaches of the communication are mainly formal lectures and demonstrations. Though the classroom lecture format that was used through the 1st to the 3rd round trainings has been substituted with a one – to – one format in the 4th round, the approach remained to be the same formal lecture, which relies on handouts and discussions.

Both the approaches are, in a way, advantageous as they involve interpersonal communication that increases the interaction between the sender and the receiver of the messages. Nonetheless, the lecture nature brings in a top – down approach which leaves the HEWs to dictate the models on what to do. Contrary to this, the literature reviewed in this study state that health communication programs should allow complete involvement of the audience instead of providing them with prescriptions of what has to be done. This implies that there may be other possible approaches to be used in order to maximize the complete participation of the public

from planning to the execution of the program. To do so, using the organizational and traditional channels, for example 'idir', coffee ceremonies, and peer – to – peer communication could have been seen to.

Another point to be mentioned in relation to the approaches is the presentation of the messages in print. As said before, presenting the messages in pictures (still or movie) could have made them more memorable and attractive.

Data found from the questionnaires and the observation also assert that all the models of the package are women, except one encountered while responding to a questionnaire. The HEWs explain that the reason is because the men are inaccessible as they spend most of the daytime away from their residences. On the other hand, the society appoints men to be the decision makers for most household matters. Without having the awareness that their wives got and without building their efficacy in changing risky habits of hygiene and sanitation, how are the husbands expected to decide to invest on hygiene and sanitation facilities? This can only be achieved by involving also the men. Though the role of the mothers in shaping the family's behavior is undeniably significant, the men should also be addressed so that they involve in hygiene and sanitation issues wholeheartedly. Shortly speaking, the contents and approaches of any health communication program will have tremendous effect on the achievements of the expected outcomes unless prior care is taken.

CHAPTER FIVE

Conclusions and Recommendations

This research has attempted to explore the overall communication strategies employed in the UHEP being run by the AAHB to bring behavioral change in habits of hygiene and sanitation. The study, to achieve its objective, has given particular attention to the approaches and contents of the health communication program.

This chapter wraps up by presenting the gist of the findings and, based on them, listing down what has to be carried out in the future for the sake of rectification and maximal effectiveness of the program.

5.1 Conclusions

The study had entirely employed a qualitative research method which was slightly complimented with quantitative methods in order to reach its destination. The data gathered through close investigation of documents, in-depth interviews, participant's observations, and questionnaires are analyzed against the theory chosen for the study, the SCT, and the following conclusions are reached upon.

The primary communication strategy of the program is found to be interpersonal communication performed in class-based or one – to – one formal discussion. This method was very convenient with both the senders and receivers (HEWs and models respectively) and effective enough raising the awareness of the target audience with respect to the topic under discussion. However, it appears in a top – down approach as the HEWs lecture the models on what to do instead of making the communication two way and utmost participatory.

The interpersonal communication was also tried to be supported by mass media channels like banners, posters, and brochures though the latter is exploited well. Handouts were also disseminated to make the communication more at ease. These channels, but, were not remarkably successful in meeting their goals for they appeared dull, brief and difficult to get understood because of budget constraint.

The same interpersonal communication was assisted by demonstrations on preparing hygiene and sanitation facilities. The demonstrations were very helpful to the objective of the program as they give the audience the necessary skills to erect physical barriers against unhealthy habits of sanitation and hygiene.

Another remark to be made regarding the interpersonal channel is that it was barely strengthened by the use of local and national mass media channels – broadcast or print. On top of that, peer - to – peer interpersonal communication and the use of traditional channels and social gatherings were totally denied the chances to be implemented side by side with the strategy selected.

When it came to the contents, the messages are totally filled with elements that targeted only on increasing knowledge: none attempted to build self-efficacy that facilitates behavioral change. As a result, models ended up in gaining good knowledge, but below average self-efficacy in changing their habits of hygiene and sanitation and retaining it persistently.

5.2 Recommendations

Taking the findings of this study into consideration, the recommendations listed below are reached upon to optimize the success of the Hygiene and Sanitation Package of the UHEP in enabling behavioral change.

1. There seems to be a need to exploit peer – to – peer communication channels so as to make the interpersonal communication hit its optimum effectiveness.
2. Traditional channels of communication and ceremonies or social gatherings like 'idirs', coffee ceremonies, weddings, etc. will have significant role in the program if taken as opportunities to convey messages with.
3. Adequate budget allocation for preparation of up to the standard brochures, handouts and other materials appears to be necessary to increase their appropriateness to the audience.
4. Using local and national mass media (radio, TV, or newspapers) and other media like video clips, photo exhibitions, staged performances (drama, music, etc.), and the like could take their own shares in reaching the audience with the intended messages.
5. Contents of the messages may need to be designed in a way that they be able to increase the level of self-efficacy that the audience has by:
    - emphasizing the achievements the models got and encouraging them to strive for more (in other terms, by helping them notice and recognize their performance outcomes).
    - facilitating experience sharing forums, of conferring prizes/ awards to models who excelled in their improvements so as to install the feeling that others too can achieve the same (bringing in the concept of vicarious experience).

- and making the contents to be encouraging and verbally persuading them that they can make it; but not dictating them what to do.

6. Encouraging men (husbands) to take parts in the UHEP and play their own roles in hygiene and sanitation issues seems to be important to broaden the effect of persuasion for behavioral change.

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Appendix 1

Questions for In–depth Interview with People in the Category of Experts

1. Name
2. Responsibility (Position) in the Woreda Administration or UHEP
3. How long have you been working at this position?
4. How do you describe the habits of hygiene and sanitation of dwellers of Woreda 1 of Lideta Sub-city?
5. How do you rank the hygiene and sanitation situations of the Woreda compared to others in the sub-city and in Addis in general?
6. Who were the intended audience (target group) of your communication program?
7. Why and how were they selected?
8. Did these people have any role in making the program achieve its goal(s)?
9. What was the dwellers' reaction at the very introduction of the program?
10. How strong was the people's self-efficacy in keeping their hygiene and sanitation at the beginning?
11. How did you find communicating the community on hygiene and sanitation issues?
12. What do you think are the major problems of the community in relation to hygiene and sanitation?
13. What key message(s) did you disseminate to improve the hygiene and sanitation habits of the community?
14. What channels of communication were used to convey messages regarding the hygiene and sanitation packages to the community?
15. What criterion/criteria did you use to choose your channel?

Appendix 2

List of Key Informants

No.	Name	Position
1	S/r Yenatfenta Kassa	Head, Woreda Health Bureau
2	Ato Alemayehu Hunde	Supervisor, Woreda UHEP
3	Ato Yenegeta Walelign	Supervisor, Woreda UHEP
4	S/r Menen Bekele	Woreda HEW
5	S/r Sifrash Tilahun	Woreda HEW
6	S/r Kumneger Aseffa	Woreda HEW
7	S/r Netsanet Giragn	Woreda HEW
8	S/r Asrat Tefera	Woreda HEW
9	S/r Metasebiya Tamirat	Woreda HEW
10	S/r Mintamer Aynalem	Woreda HEW
11	S/r Emnet Zewdie	Woreda HEW

Appendix 3

ADDIS ABABA UNIVERSITY

Graduate School of Journalism and Communication

A questionnaire to be used to collect data for a thesis to be written as a requirement for an MA Degree

Introduction:

Dear Respondent,

This questionnaire is intended to be filled out for the purpose of a research to fulfill a second degree requirement. Therefore, its purpose and objective is limited to gather information to be used only for the purpose of the same research.

This research deals with the Urban Health Extension Program being carried out by the Addis Ababa City Administration. Among the packages contained in the program, the study focuses on 'Hygiene and Environmental Sanitation Package' and evaluates the effectiveness of the communication strategies that the city administration Health Bureau employed to bring behavioral change among the city dwellers. The research takes Woreda 1(previously Kebele 01/ 18) of Lideta Sub-city as a case. Thus, this questionnaire is supposed to be filled in by respondents of this particular Woreda.

Instructions:

A. You are not expected to mention your names.
B. You are kindly requested to give genuine responses for the information you provide is only used for the purpose of the research and its confidentiality will be high.
C. Please, mark 'X' in the boxes whenever the questions provide you with alternatives.
D. Whenever the questions do not provide alternatives, please give your responses clearly and in Amharic.
E. If you are not able to read and/ or write pick a person of your choice to assist you in doing the same.

Part I: Respondent's Bio-data

1. Sex

A. Male ☐ B. Female ☐

2. Age _____

3. Educational background

A. Uneducated ☐ C. Secondary school complete ☐

B. B. Primary school complete ☐ D. College and above ☐

4. Role in family

A. Head of the family ☐ C. Son/ Daughter ☐

B. Spouse of the family head ☐ D. Extended family member ☐

5. Job

A. Unemployed ☐ C. Self employed ☐

B. Employed ☐ D. Others ☐

6. Is your family beneficiary of the Urban Health Extension Program?

A. Yes ☐ B. No ☐

7.If your response for the above question is 'No', what is the reason?

-

_____

_____

_____

_____

_____

Part II: Respondent's Family Data

1. How much is your family's monthly income?

A. Below 500 ETB ☐ C. 1000 – 2000 ETB ☐

B. 500 – 1000 ETB ☐ D. Above 2000 ETB ☐

2. Your family size

A. Less than 4 ☐ C. More than 8 ☐

B. 5 - 8 ☐

3. The size of the family's residence

A. Less than 20 m^2 ☐ C. More than 40 m^2 ☐

B. 20 – 40 m^2 ☐

4. Ownership of toilet

A. Only for the family ☐ C. No such facility ☐

B. Shared with others ☐

5.Condition of the family's toilet

A. Excellently clean ☐ C. Poorly clean ☐

B. Clean ☐ D. Bad ☐

6. Does the toilet accommodate a hand washing facility?

A. Yes ☐ B. No ☐

7. Where does your family get its water supply form?

A. Privately owned tap ☐ D. Buying from those who supply tap water ☐

B. Tap shared with other families ☐ E. Spring/ River ☐

C. Communal tap ('Bono') ☐ F. Others ☐

8. How does your family dispose its solid waste?

A. By burning ☐ D. Through waste collection service providers ☐

B. Using the Municipality's trucks ☐ E. Throwing in open areas, nearby river or ditches ☐

C. By burying ☐ F. If any other way is used please describe it below.

_____

_____

_____

_____

_____

9. How does your family dispose its liquid waste?

A. Trough the toilet ☐ D. Spilling it on the road, in fields, or into a

B. Through a closed drainage system ☐ nearby river or ditch ☐

C. Through an open drainage system ☐ E. If any other way is used please describe it below.

_____

_____

_____

_____

_____

Part III: Respondent's Awareness of Environmental & Personal Hygiene

1. How do you rate you awareness of environmental and personal hygiene?

A. Very High ☐ D. Low ☐

B. High ☐ E. Very low ☐

C. Medium ☐

2. If your response to the above question is 'D' or 'E', what is your reason?

_____

_____

_____

_____

_____

3. If your response to question number 1 above is 'A', 'B' or 'C', how did you come to develop such awareness?

A. Professionally ☐
B. From supportive education ☐
C. With the help of Health Workers ☐
D. From Health Communication programs ☐
E. With the help of friends and family ☐
F. From my media exposure ☐
G. If different please write it below. ☐

_____

_____

_____

_____

_____

_____

4. How do you rate your preparedness and capability to share what you know to others?

A. Very high ☐
B. High ☐
C. Medium ☐
D. Low ☐
E. Very low ☐

Part IV: Respondent's habit of hygiene and sanitation

1. How is your hand washing habit after defecation?

A. I always wash. ☐
B. I sometimes wash. ☐
C. I never wash. ☐
D. I do not notice it. ☐

2. If you wash your hands after defecation, what do you use to do so?

A. Water and soap ☐
B. Water and substitutes of soap (leaf, ash, etc.) ☐
C. Only water ☐

3. What is your pouring method while washing your hands after defecation?

A. Tap ☐
B. Calling others for help ☐
C. Jug and other utensils ☐
D. Dipping hands ☐

4. How often is your toilet cleaned?

A. Twice and above a day ☐
B. Once a day ☐
C. One to three days a week ☐
D. once in a month ☐
E. Never ☐

5. If your toilet is cleaned in more than a week or never at all, why is the reason?

_____
_____
_____
_____
_____
_____
_____

6. If your family does not own a toilet, what alternatives does it use? (Indicate all if more than one answer).

A. Restaurants and bars ☐
B. Offices and schools ☐
C. Public toilets ☐
D. Using utensils ☐
E. Rivers ☐
F. Open fields ☐
G. Ditches ☐
H. If different from these, write them below.

_____
_____
_____
_____
_____
_____

7. How does the family store water?

A. Reservoir ☐
B. Barrel, bucket, or pots (‘ensera’) ☐
C. Jerry can ☐
D. If others, please write them below.

_____
_____

_____

_____

8. Is there any effort that the family does to keep water clean?

A. Yes ☐ B. No ☐ C. I have not noticed it. ☐

9. If your response for the question above is "Yes", what is the effort?

A. Using a modern filtering machine ☐ D. Keeping water covered ☐

B. Using water treatment chemicals ☐ E. Please state below if others. ☐

C. Boiling and cooling ☐

_____

_____

_____

_____

_____

10. How often do you clean your house?

A. More than once a day ☐ D. Once a week ☐

B. Once a day ☐ E. Longer than these ☐

C. Every two or three days ☐

11. How often does the family dispose dry waste?

A. More than once a day ☐ D. Once a week ☐

B. Once a day ☐ E. Once in two weeks ☐

C. Every two or three days ☐ F. Longer than these ☐

12. How does the family's liquid waste from toilet disposed?

A. Through the city's sewerage system ☐ D. Flowing to the nearby river/ field ☐

B. Using the municipality's 'evacuation' trucks ☐ E. If any other, please state below. ☐

C. Connected to the nearby closed/ open ditch ☐

_____

_____

_____

_____

13. If your response to the above is different from 'A' and 'B', please explain your reason.

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Part V: Respondent's Self-efficacy in hygiene and sanitation

1. I can always manage to solve difficult problems if I try hard enough.

A. Not at all true ☐ C. Moderately true ☐

B. Hardly true ☐ D. Exactly true ☐

2. If someone opposes me, I can find the means and ways to get what I want.

A. Not at all true ☐ C. Moderately true ☐

B. Hardly true ☐ D. Exactly true ☐

3. It is easy for me to stick to my aims and accomplish my goals.

A. Not at all true ☐ C. Moderately true ☐

B. Hardly true ☐ D. Exactly true ☐

4. I am confident that I could deal efficiently with unexpected events.

A. Not at all true ☐ C. Moderately true ☐

B. Hardly true ☐ D. Exactly true ☐

5. Thanks to my resourcefulness, I know how to handle unforeseen situations.

A. Not at all true ☐ C. Moderately true ☐

B. Hardly true ☐ D. Exactly true ☐

6. I can solve most problems if I invest the necessary effort.

A. Not at all true ☐ C. Moderately true ☐

B. Hardly true ☐ D. Exactly true ☐

7. I can remain calm when facing difficulties because I can rely on my coping abilities.

A. Not at all true ☐ C. Moderately true ☐

B. Hardly true ☐ D. Exactly true ☐

8. When I am confronted with a problem, I can usually find several solutions.

A. Not at all true ☐ C. Moderately true ☐

B. Hardly true ☐ D. Exactly true ☐

9. If I am in trouble, I can usually think of a solution.

A. Not at all true ☐ C. Moderately true ☐

B. Hardly true ☐ D. Exactly true ☐

10. I can usually handle whatever comes my way.

A. Not at all true ☐ C. Moderately true ☐

B. Hardly true ☐ D. Exactly true ☐

I would like to express my heartfelt gratitude for giving your precious time and providing me with responses with at most genuinity and honesty and thereby contribute a great deal to the public and the country.

Appendix 4

አዲስ አበባ ዩኒቨርስቲ

የጋዜጠኝነትና ኮሙኒኬሽን ድኅረ ምረቃ ት/ቤት

ለሁለተኛ ዲግሪ (MA) ማሟያነት ለሚደረግ ጥናታዊ ፅሁፍ የሚሞላ መጠይቅ

መግቢያ፡

ይህ መጠይቅ በአዲስ አበባ ዩኒቨርስቲ የጋዜጠኝነትና ኮሙኒኬሽን ድኅረ ምረቃ ት/ቤት ለሁለተኛ ዲግሪ ማሟያነት ለሚደረግ ጥናት የሚሞላ ነው፡፡ በመሆኑም ዓላማውም ሆነ አገልግሎቱ ለጥናቱ ብቻ የሚሆን መረጃ መሰብሰብ ነው፡፡

ጥናቱ በከተማችን በአዲስ አበባ እየተካሄደ ባለው የከተማ ጤና ኤክስቴንሽን መርሐግብር ውስጥ ከተካተቱት ፓኬጆች አንዱ የሆነውን የግልና አካባቢ ንፅህና ጥበቃን በመውሰድ በዚሁ ዙሪያ የነዋሪዎችን አስተሳሰብ ለመለወጥ የአዲስ አበባ ከተማ አስተዳደር የጤና ቢሮ የተጠቀመባቸውን የመልዕክት ማስተላለፊያ ዘዴዎች ብቃት በመገምገም ላይ ያተኩራል፡፡ ጥናቱ በልደታ ክፍለ ከተማ የሚገኘውን አንድ ወረዳ (ወረዳ ፣ ወይም በቀድሞው ቀበሌ ዐነ18) እንደ ማሣያ ስለሚወስድ ይህንን መጠይቅ የሚሞሉት ከወረዳው ነዋሪዎች ውስጥ የተመረጡ ሰዎች ብቻ ናቸው፡፡

መመሪያዎች፡

ሀ. በዚህ መጠይቅ ላይ ስምዎን ማስፈር አይጠበቅብዎትም፡፡

ለ. በዚህ መጠይቅ የሚሰጡት ማንኛውም ምላሽ ከላይ ለተገለፀው ዓላማ ብቻ የሚውል በመሆኑና የምላሽዎ ምስጢራዊነትም መቶ በመቶ የተጠበቀ በመሆኑ በትክክል የሚያውቁትና የሚያምኑበትን መልስ ብቻ እንዲሰጡ በአክብሮት ይጠይቃሉ፡፡

ሐ. አማራጭ ለተሰጣቸው ጥያቄዎች የ"X"ምልክትን ከመልሶቹ ፊት ለፊት በተሰጠው የ ☐ሥፍራ ያስቀምጡ፡፡

መ. አማራጭ ላልተሰጣቸው ጥያቄዎች መልስዎን በግልፅ ሁኔታ በአማርኛ ቋንቋ ያስፍሩ፡፡

ሠ. ማንበብና መፃፍ የማይችሉ ከሆነ እርስዎ የመረጡት ግለሰብ እያነበበ መልስዎን በፅሁፍ እንዲያሰፍርልዎ ያድርጉ፡፡

ክፍል አንድ፡ የመላሹ መገለጫዎች

1. ፆታ

ሀ. ወንድ ☐ ለ. ሴት ☐

2. ዕድሜ _____

3. የትምህርት ደረጃ

ሀ. ያልተማረ ☐ ለ. 1ኛ ደረጃን ያጠናቀቀ ☐ ሐ. 2ኛ ደረጃን ያጠናቀቀ ☐

መ. ኮሌጅና ከዚያ በላይ ☐

4. የቤተሰብ ኃላፊነት ድርሻ

ሀ. የቤተሰብ መሪ ☐ ለ. የቤተሰብ መሪ ባለቤት ☐ ሐ. ልጅ ☐

መ. ጥገኛ ☐

5. የሥራ ሁኔታ

ሀ. ሥራ የሌለው ☐ ለ. ተቀጣሪ ☐ ሐ. የግል ☐ መ. ሌላ ☐

6. እርስዎ ወይም ቤተሰብዎ የከተማ ጤና ኤክስቴንሽን መርሐግብር ተጠቃሚ ናችሁ?

ሀ. አዎን ☐ ለ. የለም ☐

7. ከላይ ለተጠየቀው ጥያቄ ምላሽዎ ለ ከሆነ ምክንያቱ ምንድነው ?

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ክፍል ሁለት፡ የቤተሰብ ሁኔታ

ነ. የቤተሰቡ የወርሃዊ ገቢ መጠን

ሀ. ከብር 500 በታች ☐ ለ. ከብር 500-ነ000 ☐

ሐ. ከብር ነ00-2000 ☐ መ. ከብር 2000 በላይ ☐

2. የቤተሰብ አባላት ብዛት

ሀ. ከ4 በታች ☐ ለ. ከ 5 - 8 ☐ ሐ. ከ 8 በላይ ☐

3. የመኖሪያ ቤቱ ስፋት ግምት

ሀ. ከ 20 ካሬ ሜትር በታች ☐ ለ. ከ 20 – 40 ካሬ ሜትር ☐

ሐ. ከ 40 ካሬ ሜትር ☐

4. ቤተሰቡ የሚጠቀመው መፀዳጃ ቤት ሁኔታ

ሀ. የግል (የቤተሰቡ ብቻ) ☐ ለ. የጋራ (ከሌላ ቤተሰብ ጋር) ☐

ሐ. ጭራሹን የለውም ☐

5. የመፀዳጃ ቤቱ ንፅህና

ሀ. እጅግ በጣም ንፁህ ☐ ለ. ንፁህ ☐ ሐ. ንፅህና የጎደለው ☐

መ. አስጊ ☐

6. መፀዳጃ ቤቱ የእጅ መታጠቢያ አለው?

ሀ. አዎን ☐ ለ. የለም ☐

7. ቤተሰቡ ውሃ ከየት ያገኛል?

ሀ. ከግል ቧንቧ ☐ ለ. ከጋራ ቧንቧ (ከሌላ ቤተሰብ ጋር) ☐

ሐ. ከቦኖ ☐ መ. ውሃ ከሚሸጡ ግለሰቦች ☐

ረ. ከሌላ ☐ ሠ. ከምንጭ (ከወንዝ) ☐

8. ቤተሰቡ ደረቅ ቆሻሻን በምን መንገድ ያስወግዳል?

ሀ. በማቃጠል ☐ ለ. ለማዘጋጃ ቤት መኪናዎች በመስጠት ☐

ሐ. በመቅበር ☐ መ. ቆሻሻ ለሚሰበስቡ ማህበራት በማስረከብ ☐

ሠ. በወንዝ ፣ በሜዳ ፣ በገደል በመድፋት ☐

ረ. ሌላ ካለ ይግለፁ፡፡ _____

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9. ቤተሰቡ ፍሳሽ ቆሻሻን በምን መንገድ ያስወግዳል?

ሀ. ወደ ሽንት ቤት በመድፋት ☐ ለ. በአካባቢው ባለ ክፍት ቱቦ ውስጥ በመድፋት ☐

ሐ. በአካባቢው ባለ ድፍን ቱቦ ውስጥ በመድፋት ☐ መ. በመንገድ ፣ በሜዳ፣ በወንዝ፣ በገደል በመድፋት ☐

ሠ. ሌላ ካለ ይግለፁ፡፡ _____

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ክፍል ሦስት፡ የመላሹ የአካባቢና የግል ንፅህና ግንዛቤ

1. ለግልና አካባቢ ንፅህና አጠባበቅ ያለዎት ግንዛቤ መጠን ምን ያህል ነው?

ሀ. በጣም ከፍተኛ ☐ ለ. ከፍተኛ ☐ ሐ. መካከለኛ ☐

መ. ዝቅተኛ ☐ ሠ. በጣም ዝቅተኛ ☐

2. ለመጀመሪያ ጥያቄ ምላሽ “መ“ ወይም “ሠ“ ከሆነ ምክንያቱ ምን ይመስልዎታል?

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3. ለመጀመሪያው ጥያቄ ምላሽዎ “ሀ“ ፣ “ለ“ ወይም “ሐ“ ከሆነ ይህን ግንዛቤ ከየት አገኙት?

ሀ. ከሙያዬ ☐ ለ. ከተዛማጅ ትምህርቶች ☐ ሐ. ከጤና ባለሙያዎች ☐

መ. በተለያየ ደረጃ ከተደረጉ የግንዛቤ ማስጨበጫ መርሐግብሮች ☐ ሠ. ከጓደኞቼና ከቤተሰቦቼ ☐

ረ. ከመገናኛ ብዙሃን ☐

ሰ. ሌላ ካለ _____

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4. በንፅህና ዙሪያ ያለዎትን ግንዛቤ ከሌሎች ለማካፈል ያለዎት ዝግጅትና ብቃት ምን ያህል ነው?

ሀ. በጣም ከፍተኛ ☐ ለ. ከፍተኛ ☐ ሐ. መካከለኛ ☐

መ. ዝቅተኛ ☐ ሠ. በጣም ዝቅተኛ ☐

ክፍል አራት፡ የግልና የአካባቢ ንፅህና አጠባበቅ

1. ከመፀዳጃ ቤት ሲመለሱ እጅዎን የመታጠብ ልምድዎ ምን ያህል ነው?

ሀ. ሁልጊዜም እታጠባለሁ ☐ ለ. አልፎ አልፎ እታጠባለሁ ☐

ሐ. በፍፁም አልታጠብም ☐ መ. አስተውዬው አላውቅም ☐

2. ከመፀዳጃ ቤት መልስ እጅዎን የሚታጠቡ ከሆነ በምን ይጠቀማሉ?

ሀ. በውሃና በሳሙና ☐ ለ. በውሃና በሌላ ነገር (ቅጠል፣ አመድ፣ወዘተ.) ☐

ሐ. በውሃ ብቻ ☐

3. ከመፀዳጃ ቤት መልስ እጅዎን ሲታጠቡ የውሃ ማንቆርቆሪያ ዘዴዎ ምንድነው?

ሀ. ቧንቧ ☐ ለ. ሌሎች ሰዎች ያንቆረቁሩልኛል ☐

ሐ. ጆግ (ሌላ ማንቆርቆሪያ) ☐ መ. እጅ መጥለቅ ☐

4. መፀዳጃ ቤታችሁ በምን ያህል ጊዜ ይፀዳል?

ሀ. በቀን ሁለቴና ከዚያ በላይ ☐ ለ. በቀን እንዴ ☐

ሐ. በሣምንት ከ 3-ነ ቀናት ☐ መ. በወር አንዴ ☐

ሠ. ፈፅሞ አይፀዳም ☐

5. መፀዳጃ ቤቱ ከሣምንት በላይ በሆነ ጊዜ ብቻ የሚፀዳ ከሆነ ወይም ፈፅሞ የማይፀዳ ከሆነ ምክንያቱን ቢገልፁ?

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6. ቤተሰቡ ጭራሹን መፀዳጃ ቤት የሌለው ከሆነ በምን አማራጭ ይጠቀማል? (ከአንድ በላይ አማራጭ ካለ ያመልክቱ)

ሀ. በምግብ ቤቶችና መጠጥ ቤቶች ☐ ለ. በመሥሪያ ቤትና ት/ቤት ☐

ሐ. በሕዝብ መፀዳጃ ቤቶች (ክፍያ በመክፈል) ☐ መ. በዕቃ ላይ በመጠቀም መድፋት ☐

ሠ. በወንዝ ☐ ረ. በሜዳ ☐

ሰ. በገደል ☐

ሸ. ሌላ መንገድ ካለ ቢገልፁ?

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7. የቤተሰቡ የመጠጥ ወይም የማብሰያ ውሃ በምን ውስጥ ይጠራቀማል?

ሀ. በዘመናዊ የማጠራቀሚያ ታንከር ☐ ለ. በበርሜል፣ባልዲ ወይም እንስራ ☐

ሐ. በጄሪካን ☐

መ. ሌላ ካለ ይግለፁ፡፡_____

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8. የመጠጥ ውሃን በተለይ በንፅህና ለመጠበቅ ቤተሰቡ የሚያደርገው ጥረት አለ?

ሀ. አዎን ☐ ለ. የለም ☐ ሐ. አስተውዬ አላውቅም ☐

9. ከላይ ለተነሳው ጥያቄ ምላሽዎ "ሀ" ከሆነ ጥረቱ በምን ይገለፃል?

ሀ. የውሃ ማጣሪያ መሣሪያ በመጠቀም ☐ ለ. የውሃ ማከሚያ ኬሚካል በመጠቀም ☐

ሐ. ውሃን አፍልቶ በማቀዝቀዝ ☐ መ. ውሃን በተከደነ ዕቃ ብቻ ማኖር ☐

ሠ. ሌላ ወይም ተጨማሪ ካለ ይግለፁ፡፡_____

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10. መኖሪያ ቤታችሁ በምን ያህል ጊዜ ይፀዳል?

ሀ. በቀን ከአንዴ በላይ ☐ ለ. በቀን አንዴ ☐

ሐ. በየሁለትና ሶስት ቀኑ ☐ መ. በሣምንት አንዴ ☐

ሠ. ከዚህ በረዘመ ጊዜ ☐

11. ቤተሰቡ ደረቅ ቆሻሻን በምን ያህል ጊዜ ያስወግዳል?

ሀ. በቀን ከአንዴ በላይ ☐ ለ. በቀን አንዴ ☐

ሐ. በሁለትና ሶስት ቀን ☐ መ. በሣምንት አንዴ ☐

ሠ. በሁለት ሣምንት አንዴ ☐ ረ. ከዚህ በረዘመ ጊዜ ☐

12. የቤተሰብዎ የመፀዳጃ ቤት ፍሳሽ እንዴት ይወገዳል?

ሀ. ከከተማው የፍሳሽ መስመር ጋር ተገናኝቶ ☐ ለ. በመኪና በማስመጠጥ ☐

ሐ. ከዝግ /ክፍት ቱቦ ጋር በማገናኘት ☐ መ. ወደ ወንዝ /ገደል/ ሜዳ በመፍሰስ ☐

ሠ. ሌላ ወይም ተጨማሪ ካለ ይግለፁ፡፡

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13. ከላይ ለቀረበው ጥያቄ ምላሽዎ ከ “ሀ“ ና “ለ“ የተለየ ከሆነ ይህ የሆነበትን ምክንያት ቢገልፁ፡፡

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ክፍል አምስት፡ መላሹ በግልና አካባቢ ንጽህና አጠባበቅ ረገድ ያላቸው የራስ እምነት

ነ. ንጽህናን በተመለከተ የሚገጥሙኝን ከባድ ችግሮች ሁሉ በማደርገው ጥረት መፍታት እችላለሁ፡፡

ሀ. ፈጽሞ አልችልም ☐ ለ. አብዛኛውን ጊዜ አልችልም ☐

ሐ. በመጠኑ እችላለሁ ☐ መ. በትክክል እችላለሁ ☐

2. የሚያደናቅፈኝ ሰው ወይም ሌላ ነገር ቢገጥመኝ እንኳ ዘዴና መንገድ በመፈለግ የምፈልገውን ማሳካት እችላለሁ፡፡

ሀ. ፈጽሞ አልችልም ☐ ለ. አብዛኛውን ጊዜ አልችልም ☐

ሐ. በመጠኑ እችላለሁ ☐ መ. በትክክል እችላለሁ ☐

3. ዓላማዎቼን አጥብቄ በመያዝ በቀላሉ ከግቤ መድረስ እችላለሁ፡፡

ሀ. ፈጽሞ አልችልም ☐ ለ. አብዛኛውን ጊዜ አልችልም ☐

ሐ. በመጠኑ እችላለሁ ☐ መ. በትክክል እችላለሁ ☐

4. ያልገመትኳቸው ሁኔታዎች ቢገጥሙኝ እንኳ በውጤታማነት ልወጣቸው እንደምችል በራሴ እተማመናለሁ፡፡

ሀ. ፈጽሞ አልችልም ☐ ለ. አብዛኛውን ጊዜ አልችልም ☐

ሐ. በመጠኑ እችላለሁ ☐ መ. በትክክል እችላለሁ ☐

5. ተገቢው መረጃና ዕውቀት ስላለኝ አስቀድሞ ያልታዩ ሁኔታዎችን እንዴት ማስተናገድ እንደሚኖርብኝ አውቃለሁ፡፡

ሀ. ፈጽሞ አልችልም ☐ ለ. አብዛኛውን ጊዜ አልችልም ☐

ሐ. በመጠኑ እችላለሁ ☐ መ. በትክክል እችላለሁ ☐

6. አስፈላጊውን ጥረት ካደረግሁ አብዛኛዎቹን ችግሮች መፍታት እችላለሁ፡፡

ሀ. ፈጽሞ አልችልም ☐ ለ. አብዛኛውን ጊዜ አልችልም ☐

ሐ. በመጠኑ እችላለሁ ☐ መ. በትክክል እችላለሁ ☐

7. ችግሮችን የመወጣት ብቃቴን ስለምተማመንበት ከባድ ችግሮች በሚገጥሙኝ ጊዜ አልደናገጥም፡፡

ሀ. ፈጽሞ አልችልም ☐ ለ. አብዛኛውን ጊዜ አልችልም ☐

ሐ. በመጠኑ እችላለሁ ☐ መ. በትክክል እችላለሁ ☐

8. ችግሮች በተጋረጡብኝ ጊዜ ሁሉ በርካታ አማራጭ መፍትሔዎችን ፈልጎ የማግኘት ችሎታው አለኝ፡፡

ሀ. ፈጽሞ አልችልም ☐ ለ. አብዛኛውን ጊዜ አልችልም ☐

ሐ. በመጠኑ እችላለሁ ☐ መ. በትክክል እችላለሁ ☐

9. ራሴን በከባድ ሁኔታን ሁኔታ ውስጥ ባገኘሁት ጊዜ ሁሉ የማስበው መፍትሔዎችን ነው፡፡

ሀ. ፈጽሞ አልችልም ☐ ለ. አብዛኛውን ጊዜ አልችልም ☐

ሐ. በመጠኑ እችላለሁ ☐ መ. በትክክል እችላለሁ ☐

10. በመንገዴ በመግባት የሚያደናቅፈኝን ችግር ሁሉ በአግባቡ መውጣት እችላለሁ፡፡

ሀ. ፈጽሞ አልችልም ☐ ለ. አብዛኛውን ጊዜ አልችልም ☐

ሐ. በመጠኑ እችላለሁ ☐ መ. በትክክል እችላለሁ ☐

ጊዜዎን በመሰዋት ይህንን መጠይቅ በቅንነት በመሙላትዎና በዚህ ጥናት መሳካት አገርና ሕዝብ የሚያገኙትን ጥቅም ለማገዝ ሙሉ ፈቃደኛ በመሆንዎ ከልብ እናመሰግናለን፡፡

Appendix 5

Checklist for Observation of Hygiene and Sanitation Facilities at Homes of Sample Households

1. **Name of the family head: _____**

2. **Ownership of the residence: Private ☐ Government ☐ Others ☐**

No.	Hygiene and Sanitation Facilities	Yes	No	Not Known	Remarks
3.	**Possession of clean and safe toilet**				
	i. The residence has its own or shared toilet.				
	ii. The toilet is clean.				
	iii. The toilet gives privacy to the users.				
	iv. It doesn't have irritating (pungent) smell and leakage.				
	v. It has a hand – wash facility of its own.				
	vi. It is attached to the drainage system of the city.				
	vii. It flows to nearby open/ closed ditches or a river.				
	viii. It flows to an open area.				
	ix. It has a septic – tank made of concrete.				
	x. It is a dry toilet.				
4.	**Access to toilet**				
	i. The whole household uses a toilet.				
	ii. The family uses utensils/ plastic bags for defecation and disposes it in a way.				

	iii. The family uses public toilets (with payment), others' toilets (like Restaurants', Schools', Work places', etc.).				
	iv. The family defecates in open areas, rivers, bushes, etc.				
5.	**Access to safe drinking water**				
	i. The household has its own tap water.				
	ii. The household shares tap with others.				
	iii. The household uses communal water taps for payment.				
	iv. The family buys water from individuals' taps.				
	v. The family uses fresh water sources like rivers and streams.				
6.	**Water collection and storage methods**				
	i. The family avoids contacts of taps with hands.				
	ii. The household uses plastic hose attached to the tap.				
	iii. The household uses buckets and pots (ensera) for water collection and storage.				
	iv. The family uses jerry – cans for water collection and storage.				
	v. The family uses 'dip' – methods to finally consume water.				
	vi. The family prefers 'pour' – method during consumption of water.				

7.	**Waste management systems**				
	i. The household has a safe deposition system for solid waste up to the time of disposal.				
	ii. The family spills out liquid waste into open areas.				
	iii. The family uses open ditches/ closed lines to dispose liquid waste.				
8.	**Participation in hygiene and sanitation at community level**				
	i. Family/ members participate in village cleaning activities				
	ii. Family/ members take part in community level forums and discussions				

Appendix 6

Shwarzer and Jerusalem's GSE scale

Contact	Prof. Dr. Ralf Schwarzer, Freie Universität Berlin, Psychologie, Habelschwerdter Allee 45, 14195 Berlin, Germany, FAX +49 (30)838-55634 E-mail: health@zedat.fu-berlin.de www.RalfSchwarzer.de" class="external-link" rel="nofollow">http://www.RalfSchwarzer.de
Appendix	English version by Ralf Schwarzer & Matthias Jerusalem, 1995
1	I can always manage to solve difficult problems if I try hard enough.
2	If someone opposes me, I can find the means and ways to get what I want.
3	It is easy for me to stick to my aims and accomplish my goals.
4	I am confident that I could deal efficiently with unexpected events.
5	Thanks to my resourcefulness, I know how to handle unforeseen situations.
6	I can solve most problems if I invest the necessary effort.
7	I can remain calm when facing difficulties because I can rely on my coping abilities.
8	When I am confronted with a problem, I can usually find several solutions.
9	If I am in trouble, I can usually think of a solution.
10	I can usually handle whatever comes my way.
Response Format	1 = Not at all true 2 = Hardly true 3 = Moderately true 4 = Exactly true