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CASE STUDY

THE PRACTICE OF HEALTH COMMUNICATION IN URBAN SANITATION: THE CASE OF BAHIR DAR CITY HEALTH EXTENSION SANITATION PROGRAMME, ETHIOPIA

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Abstract

The main objective of the study was to examine the application of health communication in urban health extension sanitation programme in Bahir Dar City, Ethiopia. The study employed mixed research methods. Research participants of the study for the qualitative method are health extension workers, supervisors and health officers who are working in the city's health department. Purposive sampling was applied to select these research participants. In addition, 159 model households participated in this study for the quantitative part using random sampling technique. The data collection tools include in-depth individual interviews, document analysis, observation and questionnaire. Participatory communication theory and social learning theory are used as theoretical frameworks. The findings show that health communication is not used as the basic ingredient of the sanitation programme. The finding reveals that the practice of health communication is dominated by top down or one way communication approach. As a result, the health communication practice is characterised by absence of active participation of the local community. The communication of the office is also characterised by lack of health education, infrequent sanitation communication activities and poor practice of health communication. The local community perceives health communication as information dissemination about urban sanitation activities, not as a dialogical process. The study recommends mainstreaming health communication and active participation of the community in all the phases of sanitation programmes so that the city can become clean and comfortable for the urban dwellers and visitors.

Keywords: sanitation communication, health education, participatory communication, top-down communication

Background and Justification of the Study

Adequate sanitation is fundamental to good health and socio-economic development of a nation. On the other hand, lack of sanitation leads to diseases as WHO claims poor sanitation contributes a significant share of the world's hospital bed occupancy. According to WHO's (2017) report, 2.0 billion people still do not have basic sanitation facilities such as toilets or latrines, which obliged 673 million people of these to open defection. The report further reveals that at least 10% of the world's population is supposed to consume food irrigated by waste water. The report further informs us that poor sanitation is a cause for transmission of diseases such as cholera, diarrhoea, dysentery, hepatitis A, typhoid and polio and exacerbates stunting. Moreover, it reduces human well-being, and social and economic development. Due to inadequate sanitation 432, 000 diarrhoeal deaths are estimated annually. Poor sanitation is a major cause in tropical diseases such as intestinal worms, schistosomiasis, and trachoma. (WHO, 2017).

In most developing countries including Ethiopia, waste management practices are poor. Human waste is a major pollutant of environment and water sources. For example, sanitation coverage in Ethiopia remains low (60%) even after considerable efforts are made by the government and partner organizations. In Ethiopia, as elsewhere in developing countries, urban dwellers often lack basic sanitation (MoH, 2006).

The Ethiopian Public Health Proclamation No. 200/2000 article 12 states that "no person shall dispose solid, liquid or any other waste in a manner which contaminates the environment or affects the health of the society" (Ethiopian Urban Waste Management Strategy, 2015). However, according to the Urban Waste Management Strategy of Ethiopia, recent research reports indicated that more than half of the population of less developed countries have no access to sanitation and more than 80% of the waste water is directly discharged into surface and ground water bodies.

Ethiopian population has poor health status, especially among the women, and inadequate access to sanitation facilities contribute to burden ill health. This indicates that need for accelerating the expansion of primary health care facilities and training of health extension workers (HEWs) in order to attain universal health coverage as set by millennium development goal should be given attention (Central Statistical Agency & ICF International, 2012).

Because of low sanitation coverage, sanitation related health risks are common problems in Ethiopia and hence, the government has been implementing the urban health extension programme (UHEP) since 2009, which is an innovative approach initiated to meet the Millennium Development Goals (Central Statistical Agency & ICF International, 2012).

Health Extension Programme in Ethiopia

Since 2009 the Government of Ethiopia has been implementing the Health Extension Programme (HEP), which is an innovative approach initiated to meet the Millennium Development Goals (MDGs). HEP is designed to provide basic health care to an approximately 5,000 people through a health post (HP). Every HP is staffed by two female health extension workers (HEWs) trained for one year and paid directly by the government (Mezgebuet al., 2014).

The health extension programme (HEP) has 15 packages of preventive and curative health services that include three packages under disease prevention and control (HIV/AIDS and tuberculosis; malaria prevention and control; and first aid emergency measures); five packages under family health (maternal and child health, family planning, immunization, nutrition, and adolescent reproductive health); seven packages under hygiene and environmental sanitation (excreta disposal, solid and liquid waste disposal, water supply and safety measures, food hygiene and safety measures, control of insects and rodents, and personal hygiene); and one package of health education and communication (FMoH,2007).

Health service utilisation is a result of multiple factors, such as health workers' conduct, characteristics of the community (family characteristics, social structure, assets/affordability, and perceptions about modern health services). It is also influenced by enabling factors, such as the availability of health facilities, the accessibility to health services, the quality of services, and costs as well as the characteristics of

disorder (intensity of illness and number of spells). In addition, health services provision, such as intensity and duration (short or long); and frequency of house visits by health workers can have their own effect on health service utilisation (Mezgebuet al., 2014).

Health service utilisation studies in Ethiopia indicate that factors, such as awareness and perception, literacy, family size, educational status, perceived illness, family income, media exposure, perception of distance to health facilities, perceived transport and treatment costs are some of the predictor factors. The HEP is designed to increase the coverage of primary health care services in Ethiopia, mainly by producing model households' using model-family training.

The model family training comprises a total of 96 hours of training on basic hygiene and environmental sanitation (30 hours), family health care (42 hours), and disease prevention and control (24 hours).

Households, which attend at least 75% of the training and implement at least 75% of the HEP packages, receive certificates of completion at a graduation ceremony and graduate as model households. The programme addresses health service utilisation through the establishment of HP to serve 5000 people, and the deployment of two HEWs who conduct home visits in the community and give basic health services in each HP.

Also, this programme has been implemented in Bahir Dar city since March 2010 to protect sanitation problems which is one package of urban health extension programmes. During that time the number of health extension workers was only 10 but now there are 46 health extension workers who are assigned in the city (Bahir Dar City Administration Health Department Report, 2018). The standard of UHEP says one health extension worker has to serve five hundred households but it is not being applied in Bahir Dar city because the fact shows that one HEW serves more than 1,000 households.

For urban setting the government choose to use clinical nurses as Urban Health Extension Programme (UHEP) and provide them with additional pre-service three months of training and prepare them to work at the household level on health prevention and promotion (Health Extension and Education Centre, 2007 & USID/Ethiopia, 2012). Urban health services are given for urban communities to prevent health problems and it is more beneficial to prevent adverse health outcomes when it is sought early (Vearey, et al, 2010).

In urban health extension programme HEWs main task is expected to transfer knowledge and skill to the families using three approaches: the first approach, HEWs select and train model families that have been involved in other development work that have the acceptance and credibility of the community, as early adopters of desirable practices to become role models to diffuse health messages leading to the adoption of the utilisation of health extension services by the community. In the second approach, HEWs communicate health messages by involving the community from the planning stage all the way till the evaluation. In the third approach, HEWs provide different services (Health Extension and Education Centre, 2007 &USID/Ethiopia, 2012).

As Berry (2006) cited from Hargie, O. and Dickson, D. (2004), communication is central to our everyday functioning and can be the very essence of the human condition. In addition, health communication is a multifaceted and multidisciplinary approach to reach different audiences and share health-related information with the goal of influencing, engaging, and supporting individuals, communities, health professionals, special groups, policymakers and the public to champion, introduce, adopt, or sustain a behaviour, practice, or policy that will ultimately improve health outcomes.

UNICEF and Ministry of Drinking Water and Sanitation of Government of India (2012) have also stated the communication strategies with specific objectives that includes; the audience receiving the information (the, who); the content of the information (the what); the methods to be used to convey the information (the how); and the approaches to promote action for change (the action) and has put the main communication approaches suggested for the different levels and achieving the communication objectives are, through advocacy, interpersonal communication and community mobilisation with overall multi-media support. So, health communication has emerged as an important tool for achieving public health objectives.

Moreover, messaging and awareness creating is the cornerstone for conventional information, education and communication (Bernhardt, 2004; WHO, 2018).

Effective public health communication practices require exposing individuals to appropriate messages multiple times over an extended period as opposed to one-time communication efforts. Changing attitudes, behaviours, and social norms are often slow and, thus, a commitment to a steady, incremental process of communication over time is necessary (Parekh, 2017).

It is our daily observation that in Bahir Dar city, the community discharge waste water into streets and flood water drainages, and solid wastes on the main asphalt roads, playing and market areas, around restaurants and shops and living surroundings.

Also, Blue Nile (Abay) river and Lake Tana (the beauties and tourist sites of the city) are seriously affected by poorly manageable waste disposal and the problem of environmental sanitation is still deep rooted in the city. The way people collect and remove both solid and liquid wastes needs great attention as it will aggravate sanitation problems. That is way the researchers intended to conduct this research in Bahir Dar city to examine the practice of health communication in urban health extension sanitation programme.

As far as our literature review is concerned, there is no research that specifically conducted on the practice of health communication aspect in relation to implementing the health extension sanitation programme in urban areas in Ethiopia.

Objectives of the Study

The main objective of this study is to examine the application of health communication in urban health extension sanitation programme in Bahir Dar city. The study specifically addresses how the health extension workers practice communication to alleviate sanitation problems in the city. The communication approaches such as top-down vs. bottom up/horizontal, one way vs. two ways and the communication channels are examined in this part. In addition, the perception of the community about the practices of health communication in health extension sanitation programme of the city is investigated.

Research Questions

1. How health communication is practiced by health extension sanitation programme in Bahir Dar city?
2. What is the perception of the community about the practice of health communication in health extension sanitation programme of Bahir Dar City?

Literature Review

Health Communication

Exchange, Smith and Hornik study says health communication is a process for the development and diffusion of messages to specific audiences for specific objective in order to influence their knowledge, attitudes and beliefs in favour of healthy behavioural choices (as cited in Schiavo, 2007). Health communication is also the art and technique of informing, influencing, and motivating individual, institutional, and public audiences about important health issues (Schiavo, 2007). In this study, it is defined as the practice of communicating and promoting health information and issues, health education, and communication between health extension workers and the community to influence personal health choices focused on sanitation and related issues. (U.S. Department of Health and Human Services, 2005).

Health communication is also the study and use of communication strategies to inform and, influence individuals and community decisions that enhance health programmes (U.S. Department of Health and Human Services, 2005). Health communication is also the art and technique of informing, influencing, and motivating individual, institutional, and public audiences about important health issues (Schiavo, 2007).

A health communication is effective when it could inform, and motivate individuals and large public audiences about important health issues. According to Schiavo (2007), health communication is exchange and interchange of information in two-way dialogue approach. It is also an interactive interchange of information, ideas, techniques and knowledge between senders and receivers of information on an equal footing, leading to improved understanding, shared knowledge, greater consensus, and identification of possible effective action.

Schiavo emphasises health communication is a multifaceted and multidisciplinary approach to reach different audiences and share health-related information with the goal of influencing, engaging, and supporting individuals, communities, health professionals, special groups, policymakers and the public to champion, introduce, practice, adopt and sustain a behaviour that will ultimately improve health programmes.

Role of HEWs to Practice Health Communication

Health communicators who are working in sanitation promotion need ideas and strategies that can serve as practically useful tools. A health communicator communicates about sanitation, must be able to make out and take in what's going on inside the mind of a community (Ramesh, 2015). Communication with the public and stakeholders during urban health extension programme is critical to manage any sanitation crisis because communication is aimed at educating, informing, advocating, preparing and preventing any problem in urban settings. Also, as Yitayal, et al. (2014) stated in health extension programme, HEWs visit households and model households to improve sanitation.

The creation of equitable health system is not an end by itself, but it is a basic requirement to achieve better health outcomes. Although the HEP is a new initiative, it brought positive achievements and has faced challenges as well (Yilkal (2013). He stated that HEWs are required to spend 75% of their time conducting outreach activities by going house-to-house but there is no strong follow-up mechanism between the health posts and health centres. HEWs are expected to help households, latrine construction and solid waste disposal and they should communicate health messages by involving the community from the planning stage to all the way through the process evaluation.

Theoretical Frameworks

Participatory Communication Theory

Participation is not a new concept (Buchy, Ross et al. 2000). It represents a move from the global, a spatial, top-down strategies that dominated early development initiatives to more locally sensitive methodologies (Storey 1999). There are differing opinions as to the origins of participation theory of communication. Midgley et al., (1986) suggested that the historical antecedents of community participation include: the legacy of western ideology, the influence of community development and the contribution of social work and community radicalism. Buchy, Ross et al., (2000) suggested that literature on participation and participatory processes stems broadly from two major areas: political sciences and development theory.

Participatory communication is an approach capable of facilitating people's involvement in decision-making about health issues and capable of addressing specific needs and priorities relevant to people and at the same time assisting their empowerment (Mefalopulos, 2003). According to Mefalopulos, participatory communication can able to increase the sustainability of ownership. He also stated participatory communication theory is a term that denotes the theory and practice of communication used to involve people in the decision making of the development process.

To achieve the goal of urban health extension programme, effective communication helps to generate new ideas, concepts, or practices spread within a community. Therefore, participatory communication theory is taken as the framework for the practice of health communication in urban health extension sanitation programmes.

Social Learning Theory

Bandura's social learning theory defines learning "a behaviour that can be acquired through observation from others with in their social surrounding." Thus, the basic idea of this theory is, people can learn by observing the behaviour from others and the outcomes of those behaviours. The theory also suggests people learn by noticing the benefits of actions that they observe other people performing (Bandura, 1989). As of Bandura, we could control our own behaviour through self-regulation. Self-regulation requires a person to self-observe, make judgments about our environment and ourselves, and self-response.

Social learning theory, also known as observational learning, occurs when an observer's behaviour changes after viewing the behaviour of a model. Nabavi (2014), as cited in Sunday (2016), states social learning is based on the idea that we learn from our interactions with others in a social context. After observing the behaviour of others, people assimilate and imitate that behaviour, especially if their observational experiences are positive ones or include rewards related to the observed behaviour.

The principles of social learning can be applied to almost any social and behaviour change communication (SBCC) programme that aims to influence social behaviours, particularly behaviours that are complex or involve interactions with other people. In UHEP implementation, people tend to adopt and practice behaviours they see others doing. For instance, model households' practice on sanitation is expected to influence the behaviour of other households. Also, social learning principles can be used to change perceptions of the social environment, making behaviours seem more common and providing social support to people who are considering a behaviour change.

Also, making others learn from the model households (graduate households') about sanitation practice is one activity of HEWs. So, observing the practice of Social learning theory in UHEP will help to critically understand the inter connection of HEWs, Model Households and Households to bring behavioural change on sanitation.

Research Methodology

The study used a mix of qualitative and quantitative methods. The research question that are focused on practice of health communication was used for the qualitative approach whereas the perception from the community about the health communication practices in the sanitation programme was answered through quantitative method. According to Holland and Campbell (2005, p. 5) qualitative research has a power to explore depth information. Also, qualitative method of research is detailed, requiring personal touch in a natural setting and used to answer questions about the nature of the phenomena with the participants' point of view (Akaninyene 2014). Bryman (2004, p. 266) describes qualitative research method "usually emphasises words rather than quantification in the collection and analysis of data" whereas quantitative method justifies quantification of simple statistics such as attitudes and behaviours of the respondents. In this study, the perceptions of the local community about the heath communication of the bureau and sanitation activities are studied using quantitative method. So, employing the two methods has maximised the credibility of the findings of the research.

Study Area

The study conducted in Bahir Dar city, which is the capital city of Amhara Region, Ethiopia. The city is found 565 kilometres north-west from Addis Ababa, which is the capital city of Ethiopia. The city's astronomy location is also at 11º 38´ north latitude and 37º 15´east longitude and has an elevation of 1,700 meters above sea level with 19.6ºc average annual temperature and 1,419 mm average annual rain fall. Currently Bahir Dar city has six urban sub-cities with a total population of 218,363 (Amhara Regional State Plan Commission Report, 2018). This study is focused on the practice of health communication in urban health extension sanitation programme at Bahir Dar city, particularly Fasilo and Shum-Abo Sub-cities. These two sub-cities cover 34.1% of the total population of the city. Fasilo and Shum-Abo sub-cities are also the oldest sub-cities in establishment and densely populated areas of Bahir Dar city (Bahir Dar city administration city profile document, 2018).

Study Population

The population of the study for the qualitative method are all health extension workers and their supervisors that are found in the two sub-cities as well as the health officer (expert of sanitation and health extension programme) in the city health department.

According to the data of Amhara Regional State Plan Commission (2018), currently there are six sub-cities in Bahir Dar with the population of 218,363 and above 18,000 households that live in the city. From this, the target areas Fasilo and Shum-Abo sub-cities cover 1,759 model households. These model households (1,759) of the two sub-cities are the target population of this research to collect data for the quantitative method. The researchers selected purposively the model households to get valuable data about the practice of health communication in urban health extension sanitation programme. Supporting this idea, Burns (1997: 365) states that in case study research design to select a case or a sample, we can use purposive, judgmental or information-oriented sampling techniques to gather information through questionnaire.

Table 1: Population Size and Model Households of Each Sub-City

No.	Sub-cities	Population size	Population by Gender		No. of HH	No. of Model HH of selected sub-cities
			Male	Female		
1	Minilik II	30,379	14,227	16,151		
2	Tana	49,071	21,849	27,220		
3	Hidar 11	29,001	13,587	15,413		
4	Fasilo	**34,818**	**15,132**	**19,685**	**3,573**	**843**
5	Belay Zeleke	35,395	17,656	17,741		
6	Shum-Abo	**39,699**	**18,984**	**20,715**	**3,741**	**916**
	Total	218,363	101,435	116,928	**7,314**	**1,759**

Source: Amhara regional state plan commission 20018 report and Bahir Dar City Health Department data, 2018

Besides, in order to understand the practice of health communication in urban health extension sanitation programme, the researchers undertook observation with observation checklist on contexts and cases in which the population and the participants live. Thus, health extension workers, supervisors, the health officer, households and model households of the two sub-cities are the population for this purpose and also document analysis has been carried out at the Bahir Dar city health department and health extension centres to examine the urban sanitation strategies, documents, reports, manuals etc. regarding the practice of health communication in urban sanitation.

Sample Size and Sampling Technique

The study employed purposive sampling and simple random sampling techniques for the qualitative and quantitative methods respectively in order to gather data from the respondents. Therefore, the qualitative data was collected from all thirteen key informants (10 HEWs, two HEWs' supervisors in the two sub-cities and one health officer from the city health department) through in-depth interview.

For the quantitative method, by using simple random sampling, the researchers collected the required data from the two sub-cities' model households (1,759) through questionnaire. To determine the sample size from the total population, the researchers took 10% of the model households in each sub-city. Based on these assumptions, 84 model households in Fasilo sub-city and 92 model households from Shum-Abo sub-city were selected randomly from the total households for questionnaire data gathering. Thus, 176 model households were taken as a sample for questionnaire in the two sub-cities and 159 model households were participating in this study, giving a response rate of 90.3%. Hence, the researchers used simple random sampling to distribute questionnaires.

Data Gathering Tools

In this research, the researchers have tried to use in-depth individual interviews, document analysis and observation to collect data for the qualitative method. Questionnaire was also another technique of data

collection instrument used for randomly selected respondents among the model households of the two sub-cities for the quantitative method. Supporting this, Denzin (1989), as quoted in Frey (1994), stated 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) said that the "weaknesses in each single method 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.

In-Depth Interview

One of the techniques used in this study is in-depth interview. Semi-structured interview questions were used to let the interviewees express their views and perceptions about the practice of health communication and the factors that affect the sanitation programme. Bryman (2004, p.543) 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. The questions are frequently somewhat more general in their frame of reference from that typically found in a structured interview schedule. 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 interviewers and the interviewees. The collected data was also recorded (in audio) in order not to interrupt the course of interview for note taking and to preserve the discussions more perfectly.

Document Analysis

Document analysis is a form of qualitative research in which documents are interpreted by the researchers to give voice and meaning to the topic (Hansen et. al.1998). Hence, as one of the objectives of this study is finding out the health communication strategy practiced by the urban health extension sanitation programme, the researcher has tried to closely study the materials that the HEWs use to train the households to change attitudinal and behavioural problems. In this attempt, documents of the health communication policy, urban health extension sanitation packages, different HEP manuals, handouts, reports, brochures, posters, banners and other health-related documents used by the health extension workers, supervisors and the city health department.

Observation

Observation is a very important data-gathering tool in a qualitative research, especially for studying communication (Deacon and et al. 999). As quoted in Temesgen (2007), Gray (2004) states that observation is not simply a question of looking at something and then noting down the facts. However, it is a complex combination of sensation and perception (p. 34). Deacon and others (1999) also support this idea by explaining that observation is not just "being a fly on the wall" (p. 250). These indicate that a careful and systematic viewing of people's acts and behaviours can help to keep record of the observed elements and analyse 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 conduct visit was made to observe the techniques and strategies of health communication practice, and the sanitation facilities and the conditions of households. And also, the researchers observed the sanitation activities of the community, the sanitation of the city, implementation of health communication education and trainings, practice of health communication messages through community meetings, road shows and community drama were part of observation because these activities are significant for the practice of health communication in urban sanitation. Hence, the researchers observed these issues by doing field observation at the research areas.

Notes about the observation taken with the help of a check-list prepared for the same purpose and some were record and taken with video and pictures. This is believed to create a favourable condition for subjective understanding, seeing the unseen by being there at the spot and making the data deep and full of texture.

Questionnaire

According to Hansen and et al. (1998), questionnaire is basic tool (especially when it is standardised and well-organised) that can be used to collect data about current attitudes and preceptors. "This does not mean that questionnaire is restricted to the collection of information. It is useful method for finding out individual opinions, attitudes, behaviour and so on towards a whole range of topics and issues" (p. 225).

Based on this thought, the questionnaires were prepared with standardised format from different sources to develop questionnaires for this study. The questionnaire had close-ended questions so that the close-ended questions assist to collect factual data from the options given in Likert scale.

Therefore, for this study, 176 questionnaires were distributed to the target audiences of the model households (to the samples) to examine their perception about the practice of health communication in the health extension sanitation programme. Here, the involvement of the community in urban sanitation programme; the understanding of the community about health communication; awareness of the community about sanitation communication messages that disseminated to them; the impact of the messages on lives of the target audiences; health promotion practice and so on, were examined and collected through questionnaire. From the total distributed questionnaire to the samples, 159 questionnaires were returned and rest (17) questionnaires were discarded. Therefore, analysis of the quantitative has been done with the response of 159 respondents.

Data Collection Procedures

The field work was started at the end of 1stweek of May, 2019. In the 1st week of May in-depth individual interview was conducted at Shum-Abo and Fasilo sub-cities and Bahir Dar city health department for five days. Gathering the in-depth interview data was carried out at each spot site, which means the HEWs, supervisors and the health officer were interviewed on their duty station (office) depending up on their consensus. This has taken 8 hours and 40 munities to interview all the thirteen key informants i.e. 28 munities to the minimum and 56 munities to the maximum in order to collect the tape recorded and hand written relevant data.

Also, documents associated with health communication and urban health extension packages, strategies, policies, manuals and reports from 2010 to 2018 were analysed parallel to the in-depth interview. The documents were collected from Bahir Dar city health department and at health extension workers duty station (office).

The quantitative data was collected from 159 households of Fasilo and Shum-Abo sub-cities during the 2nd week of May 2019. The Likert scale structured questionnaire that was developed from different literatures with certain modification was distributed to the respondents and collected at each sub-city *kebeles*, which would be centre for the community so as to support the qualitative data. The questionnaires were initially prepared in English and then translated into Amharic. The Amharic version was again translated back into English to check for any inconsistencies or distortion in the meaning of words and concept. During data collection process, four questionnaire data collectors who completed grade 10 and speakers of the local language participated for questionnaire distribution and collection. The data collectors took training for two days focusing on procedures, techniques and ways of collecting the data.

During data gathering through questionnaire, the principal researcher made day to day site supervision in the whole period of data collection. At the end of each day, the questionnaires were reviewed and checked for completeness, accuracy and consistency by the researcher and corrective discussion was taken with data collectors and a reminding remark had been given to eliminate or minimize errors. Corrective actions had been taken timely before starting data organizing and analysis.

On the same week of questionnaire data gathering time, observation was conducted using observational checklist at the research areas of Bahir Dar city particularly, Fasilo and Shum-Abo-sub-cities.

Data Processing and Analysis

Data from the in-depth interviews were gathered from audio recordings and hand-written notes. The recorded data was transcribed and translated into English, since the data was collected in Amharic. Then, the relevant data was coded so as to make it convenient for description and analysis of thematic relationships and patterns of relevance to the research.

In addition, the quantitative data collected through questionnaire analysed through descriptive statistics using the statistical package software for social sciences (SPSS) Version 22.0.

Operational Definitions

- *Health Communication:* health communication is the art and technique of informing, influencing, and motivating individual, institutional, and public audiences about important health issues such as sanitation in this study (Schiavo, 2007). Specifically in this study, it is defined as the practice of communicating and promoting health information and issues, health education, and communication between health extension workers and the community to influence personal health choices focused on sanitation and related issues (U.S. Department of Health and Human Services, 2005).

- *Sanitation*: it is a process whereby people demand, affect and sustains hygienic and healthy environment for themselves through prevention of human contact excreta as well as the treatment and proper disposal of solid and liquid wastes.

- *Urban Sanitation*: urban sanitation is the collection, storage/treatment, transportation, re-use or disposal of excreta, liquid and solid waste in ways that improve or sustain human health and the environment.

- *Behaviour Change*: is a researched-based, consultative process of addressing knowledge, attitudes, and practices through identifying, analysing, and segmenting audiences and participants in programmes and by providing relevant information and motivation through well-defined strategies.

- *Health Extension Programme (HEP):* a defined package of basic and essential preventive and selected high impact curative health services targeting households and communities.

- *Social and Behavioural Change Communication (SBCC):* is a research-based consultative process that uses communication to promote and facilitate behaviour change and to support the requisite social change for the purpose of improving health outcomes. It is also the systematic application of interactive communication processes and strategies to address tipping points for change at the individual, community, and social levels (MoHFW, 2016).

- *Social Mobilisation*: a continuous process that engages and motivates the community to raise awareness and demand for a particular development objective. These partners may include government policy makers and decision makers, community opinion leaders, bureaucrats and technocrats, professional groups, religious associations, non-governmental organizations, private sector entities, communities and individuals.

Results and Discussion

The Practice of Health Communication in Urban Sanitation Programme

Communication is research-driven and consultative process involving planning, design and implementation of strategic interventions. It provides relevant information and adequate motivation to impact on attitudes and behaviours of individuals or groups of people. It involves monitoring the changes in peoples' attitudes and behaviours as laid down by the programme objectives (UNICEF, 2005: 3). According to this assumption, to achieve healthcare programme objectives, health communication has to be implemented

properly with its own planned and designed strategic guideline interventions. Supporting this idea Schiavo (2007) stated that health communication practice is vital for development agendas for specific audiences for specific objective in order to influence knowledge, attitudes and beliefs in favour of healthy behavioural choices.

Thus for this study, in order to achieve the objectives of urban sanitation, the practice of health communication needs the active involvement of HEWs and the community. The HEWs implement the sanitation programme through house-to-house visit with other packages. They held interpersonal communication with households about what sanitation activities has been done. At this time the head or the spouse of the family are the main actors who take responsibility to implement sanitation activities. So, the active participation of these actors is mandatory for fulfilling sanitation objectives. However, according to the data, most of households did not participate actively in sanitation activities and they did not implement what HEWs taught them even if there is no continuous follow up of house-to-house visit. The following interview data show this problem. A respondent from health extension supervisors (SS1) said that:

> *Participation of the community is a challenge to implement health extension sanitation programme because of attitudinal, awareness and behavioural problems. Although we rouse the community to implement urban sanitation activities, we did not give attention for the practice of health communication to change these problems. Using appropriate communication approach in the implementation of urban sanitation is also another gap that affects the sustainability of urban sanitation because practicing one-way communication couldn't bring behavioural and attitudinal changes in the community.*

A participant from Fasilo sub-city HEWs (FHEW2) also added that:

> *Although we tried to inform the community what to do about urban sanitation, change couldn't come still and the community did not actively participate on sanitation activities. Off course, because of having limited time as result of serving more households, we use one-way interpersonal communication to inform sanitation activities and other packages during house-to-house visit. Also, this can be linked with the lack of sanitation communication guideline.*

The data of the observation also shows that the community is inactive for holding sanitation campaigns. During the observation time, the researchers did not see any community-based activity about sanitation. This indicates the community did not make urban sanitation a common agenda due to awareness, attitude and behavioural related problems. The fact on the ground has shown that the community did not participate actively in sanitation activities and the major actors and the government did not give attention for it by designing community based inclusive sanitation communication strategy such as dialogic bottom-up approach of communication and mass communication mechanisms to mobilise the community.

Health education is one method of addressing the community to change their behavioural and attitudinal related problems about health and health related issue. In Bahir Dar city, HEWs did not practice health education at the health facilities through training and other means of mechanisms. One of the respondents from the health HEWs (FHEW1) confirmed that:

> *I give health education information about urban health extension packages for a short time to households during house-to-house visit. This is the way that I use to create awareness about sanitation. My focus is in implementing sanitation activities that the sanitation document orders us. There is no well-organised health education programme which is given for the community at health centres to bring behavioural change.*

Also, according to the observation of the researchers, HEWs tried to teach head/spouse of the family about sanitation through one-way interpersonal communication. They did it during their house-to-house visit by including other urban health packages. Here, the family in one household did not get proper health education that helps to bring behavioural change in urban sanitation. So, there is not strong sanitation awareness health education in urban sanitation programme.

The observation data also assured that waste management system of the community is very poor because the community discharges liquid wastes to flood water drainages and drop solid wastes at the main asphalt roads, playing and market areas, around restaurants and shops and living surroundings. The following sample pictures confirmed that the way people remove both solid and liquid wastes needs great attention as it aggravates the sanitation problems of the city.

Figure 1: Sampling Pictures that Show Poor Waste Management at Bahir Dar City

Although there are waste disposal areas near the streets, the community did not have a habit to use these and they are not interested to construct soak pit and seepage pits for liquid waste disposal. However, most households connect their liquid waste disposal system with drainages. This indicated that the severity

of awareness, behavioural and attitudinal problems. To bring sustainable change in urban sanitation, practicing health communication should give attention. Without effective implementation of health communication, it is impossible to bring behavioural and attitudinal change in the community.

Data from our observation depicted that in urban sanitation programme, HEWs inform households to do three main things i.e. how to collect wastes, how to dispose it and how to dispose dream lights. However, they did not hold in-depth awareness-creation activities by using appropriate interpersonal communication during house-to-house visit. The communication approach that HEWs used to change the behaviour of the community and to solve sanitation problems is one-way interpersonal communication. It is clear that this communication approach limits the interaction of HEWs and the community on common agendas. Thus, to influence others interpersonal communication should implement based on its scientific procedure.

The interpersonal communication approach of HEWs also affects effectiveness of health communication to achieve the goal of the urban sanitation programme. Implementing appropriate communication approaches and multi-communication channels are too important to bring attitudinal and behavioural changes in the community because these help for HEWs to address a wide range of sanitation problems even to treat illiterate and literate community appropriately. Supporting this, the respondent from the health department (HOHD) confirmed that, although health communication has different approaches, HEWs use one-way interpersonal household communication approach commonly. Here, social mobilisation, health promotion, advocacy and health education approaches of communication aren't implemented. This resulted poor sanitation of city. The reason is also the problem of using health communication approaches to convince the public.

To overcome this gap, bottom-up and co-productive types of participation, the wheel of participation, are the appropriate types of engagement to the purpose and context in which engagement is needed because as Schiavo (2007) discussed, health communication is exchange and interchange of information through two-way process. A process for partnership and participation is based on the two-way dialogue, where there is an interactive interchange of information, ideas, techniques and knowledge between senders and receivers of information on an equal footing. However, the practice of health communication in Bahir Dar city did not show this fact because the HEWs used top-down approach of communication that is one way of communication to implement sanitation activities. Here, the community did not get the chance to participate using appropriate communication approach. This resulted in poor communication between HEWs and the community about sanitation. The community is not active to involve in urban sanitation activities. According to Mefalopulos (2003) participatory communication is able to increase the sustainability of participation and ownership and Horányi (2001) argued that participation communication can able to address and resolve difficulties that faced in communication.

As communication for any development is a social process that promotes dialogue between communities and implementers to bring the intended goal, active participation of the target population is vital to alleviate sanitation problems in the community. That is no doubt community-based strategies, plans, implementations and evaluation systems cannot be effective without the active participation of the target audiences. So, using bottom-up approach of communication system can mobilise the participation of the community because it is no doubt to achieve the goal of urban health extension programme, effective communication helps to generate new ideas, concepts, or practices spread within a community. Therefore, examining participatory communication in urban sanitation helps to take solutions for the limitations.

To accelerate the practice of health communication in urban sanitation, addressing health education for the community about health and health-related issue is very basic. However, in the context of Bahir Dar city UHEP health education is forgotten. Although it is important for safe sanitation, it is not practised properly with scheduled programme as HEWs usually use one-way interpersonal communication to inform sanitation activities for households. This affects the practice of health communication in urban sanitation programme. According to the principle of social learning theory Nabavi (2014), as cited in Sunday (2016), says social change can happen based on the idea that we learn from others in a social context. So, to overcome the gap of urban sanitation, the community should learn and adopt new behaviours of healthcare from others. Thus, making others to learn from more effective model households about sanitation practice can be one to teach health education. So, observing the principle of social learning theory in UHEP can help to critically understand the limitation of health education to bring behavioural and attitudinal changes.

Besides, the Ethiopian Health Sector Development Plan (HSDPs) of 1997 recommended that in its general strategy, to bring sustainable change in health issues, health education must be strongly practised through the HEWs, health facilities, community leaders, religious and cultural leaders, professional associations, schools, mass media etc. by targeting specific populations. However, it is paper value because the fact on the ground did not show this explanation. On the other side, although the strategic plan stated about specific audiences, there is not specific sanitation health communication strategy that helps to teach sanitation health, so, this gap should be given due attention.

The role of health communication is creating community awareness and changing the behaviour of the community about sanitation issues. However, it was not practised properly in urban health extension sanitation programme of Bahir Dar city. As the data of the community and HEWs confirmed behavioural and awareness problems of the community are directly related with the practise of health communication. In urban health extension sanitation programme HEWs tried to create community awareness through visiting households and by informing the activities of sanitation. After a month the HEW also returned back to the households for the same activity. However, as Yilkal (2013) stated, to create awareness and to change the behaviour of the community, HEWs are required to spend 75% of their time conducting outreach activities through house-to-house visit but the fact did not show this since there is not frequent follow-up of households. Therefore, to bring sustainable change in awareness and behaviour of the community, practising health communication is very vital. Without effective implementation of health communication, it is impossible to bring behavioural and attitudinal changes in the community. According to the data of observation, there are households who dispose solid wastes at the streets, near to other household's compound, recreation areas, and market areas, as well as liquid wastes in to drainages. This experience of the community is highly linked with behavioural and attitudinal problems.

According to Bandura's (1989) social learning theory, behaviour is learned by observation, imitation, and positive reinforcement. Individuals who observed something from an individual joined the scheme with no hesitation. Thus, communication for behaviour change should aim to foster positive behaviour; promote and sustain individual, community, and societal behaviour change; and maintain appropriate behaviour. As the fact indicated also, the community is not active to implement the sanitation activities as informed during home visits to construct seepage pits for liquid waste disposal and to collect then to transfer solid wastes for dream lights. This indicated that the severity of awareness, attitude and behavioural problems. Therefore, changing the behaviour of the community must be the primary homework for major actors of urban sanitation programme to develop the audiences' ownership feeling about urban sanitation. Hence, social and behavioural change of communication is an applicable model of communication for the practice of health communication in urban sanitation because SBCC is often used in communication strategies like group communication, community-level discussions, dialogical interpersonal communication and mass communications to influence collective behaviours that affect health (Cooper, 2014).

Messages are one method that health communication practised to change the behaviour of the community. However, messages that are disseminated to the community during house-to-house visit are mostly oral orientations. Here, the problem is linked with marginalising health communication because oral orientation massages lack scientific principles like issues and audience identification to influence the community's knowledge, attitudes and beliefs. Messages could basically design to initiate the public to keep sanitation and associated problems because effective messages have a power to change the community's behaviour and effective messages are abridge to create strong relationship between the community and HEWs to implement sanitation activities effectively.

Maibach and Parrott (1995) depict that communication messages are the heart of advocacy planning and to develop successful messages, HEWs need to know their audience and develop appropriate message in a simple, clear and concise way. According to Burton and Dimbleby (1995), all relationships are conceived, affirmed, conducted and even broken by the use of communication messages.

Thus, to bring the required attitudinal, behavioural and social change in the community about sanitation issues, effective messages should be developed in the form of texts, pictures, role play and broadcasted systems and etc. In addition, brochures, billboards, leaflets etc. with key sanitation communication messages must be developed and dispatched to target audience.

Maibach and Parrott (1995) also recommended that communicators should use novel messages, settings and media channel to present health messages. In addition, they should instruct the audience to pay attention to the message. More generally, Witte (1995) depicted that a persuasive health message should contain a threat message, an efficacy message, various cues, and that it should be targeted towards a specific award, regardless of the topic, type of message or environment. Thus, to motivate audiences into action, the message needs to convince individuals.

In urban health extension sanitation programme, HEWs use one-way interpersonal communication approach. They did not use group and family discussions, opinion and religious leaders, public meetings, *Kebele* [1] conferences, traditional associations like *edir* [2] *,mahiber* and *ekub,* because using multi-communication channels helps to influence the community in different ways. Practising such community-based channels helps to get important health information and to design appropriate messages immediately and enables people to discuss on common problems as well as helps to reach at common decision.

Also, HEWs inform households how to collect and dispose wastes and how to transfer it for dream lights through interpersonal communication. Here, HEWs inform about the sanitation activities for households by using one-way interpersonal communication during house-to-house visit and they practise simple communications that seems like orientation. This communication system could not bring behavioural change in urban sanitation. Interpersonal communication is a dialogic mode of communication that focuses on either one-to-one or one-to-group communication. One-to-one channels include peer to peer, and health extension worker to client (Piotrow & Kincaid 2001a). It is a genuine two-way process; frequently transactional in health communication that the people involved both influence and influenced each other. Both bring their prior experiences, values and 'personalities' to influence the interaction. So, to change the behaviour of the community, well-organised communication system should be implemented. As Hargie et al., (1997) have put forward a model of interpersonal communication that rests on three basic assumptions. These are that people act purposefully, they are sensitive to the effects of their actions and they take steps to modify subsequent actions in the light of this information.

Thus, implementing appropriate communication approaches and multi-communication channels are too important to bring attitudinal and behavioural changes in the community. Practising variety of sanitation communication approaches help to address a wide range of sanitation problems and the audience because as of Crawfor and Okigbo (2014) said, both the media and personal influences are useful channels for health communication to make a health issue a common agenda and to hold on campaigns.

Persuasion communication can bring a sense of ownership and helps to make an issue a common agenda in the community. HEWs practice persuasion communication through interpersonal communication and rarely by using one-to-five groups for the urban sanitation programme in Bahir Dar city. They use their own persuasive methods during unorganised household visit and they tried to convince the community through one-way interpersonal communication and one-to-five groups. Here, the community dislikes the one-to-five groups as believing it as politically-aimed organised group but still it is used. Petty and Cacioppo's (1986) depict persuasion as a process in which the success of influence depends largely on the way the receivers make sense of the message. It is not accidental, nor is it coercive, it is inherently communicational.

McGuire (1984) also discussed that persuasion communication theory is focused on how people process information. According to this theory, to achieve communication goals, message design, messenger credibility, communication channels, and the characteristics of both the intended audiences and the recommended behaviour all influence behavioural outcomes. It is clear that without an effective persuasion communication to the community, sanitation programme cannot be made a common agenda. However, if we work hard to change the behaviour of the community by using appropriate persuasion communication approach and skill, sanitation activities can be effective but the fact did not show this experience.

[1] Kebele: The lowest administrative organ in the sub-city
[2] Edire: Community groups that collect funds for funeral costs

To overcome this gap, bottom-up and co-productive types of participation and the wheel of participation, are the appropriate types of engagement to the purpose and context in which engagement is needed because as Schiavo (2007) discussed, health communication is exchange and interchange of information through two-way process.

Perception of the Community about Urban Sanitation and Communication

Table 2: Sex and Age Bio-Data of Questionnaire Respondents

Sex & Age		Frequency	Percent
Sex	Male	48	30.2
	Female	111	69.8
	Total	159	100.0
Age levels	22-30	28	17.7
	31-45	66	41.5
	46-60	54	34
	>60	11	6.8
	Total	159	100

Of total study subjects, 159 (69.8%) were females and 48 (30.2%) were males. Here, the majority of respondents (66 or 41.5%) were found to be between 31 and 45 years old, 28(17.7%) respondents levelled between 22-30 and 54(34%) of the respondents' age level found between 46-60. The rest 11 respondents are above the age of 60.

Table 3: Role in Family Biodata of Questionnaire Respondents

	Frequency	Percent	Valid Percent
Head of the family	45	28.3	28.3
Spouse of the family	105	66.0	66.0
Son/ Daughter	7	4.4	4.4
Extended family member	2	1.3	1.3
Total	159	100.0	100.0

Most of the respondents are spouse of the family i.e., 105 (66.0%) while 45(28.3%) of the respondents are head of the family. The rest 7 (4.4%) households are son/daughter of the family and the 2 are extended family members.

Table 1: Educational Background Biodata of Questionnaire Respondents

Educational Background	Frequency	Percent	Cumulative Percent
Uneducated	29	18.2	18.2
Primary school complete	41	25.8	44.0
Secondary School complete	47	29.6	73.6
College and above	42	26.4	100.0
Total	159	100.0	

Educational backgrounds of the questionnaire respondents are varied, that is 18.2% are uneducated, 25.8% completed primary school, 29.6% completed secondary school and 26.4% are college-educated and above.

Table 2: Job Biodata of Questionnaire Respondents

Job	Frequency	Percent	Cumulative Percent
Unemployed	23	14.5	14.5
Government Employed	78	49.1	63.5
Private employed	14	8.8	72.3
Others	44	27.7	100.0
Total	159	100.0	

From 159 participants of the study 78 (49.1%) of the respondents are government-employed and 23 (14.5%) are unemployed. There are also 14 (8.8%) households who are privately-employed. Other respondents are pensioners, dealers and daily labourers.

The following tables also discussed about the perception of the community on the practice of health communication in urban health extension sanitation programme based on the questions that were addressed for the households by using questionnaire.

Table 3: I have Clear Awareness on Health Communication Practice in Sanitation Programme

Scales	Frequency	Percent	Cumulative Percent
Strongly disagree	32	20.1	20.1
Disagree	92	57.9	78.0
Agree	17	10.7	88.7
Strongly agree	18	11.3	100.0
Total	159	100.0	

From the respondents, 124 (78%) of the households have no clear awareness about health communication practice in urban sanitation. Thus, this might affect waste management practice of the community because as the data indicated, most respondents said they did not know clearly the practice of health communication for safe sanitation. Only, 35 (22%) of the respondents have awareness about it. This shows that community awareness activities are not properly implemented.

Table 7: HEWs Use Bottom-up Approach of Communication System to Address Sanitation

Scales	Frequency	Percent	Cumulative Percent
Strongly disagree	18	11.3	11.3
Disagree	111	69.8	81.1
Agree	20	12.6	93.7
Strongly agree	10	6.3	100.0
Total	159	100.0	

From the total 159 model households, 129 (81.1%) assured that HEWs did not use bottom-up approach of communication system to address sanitation issues. Whereas 30 (18.9%) agreed with bottom-up communication approach. In order to mobilise the community to participate actively in sanitation activities, using bottom-up approach of communication is so important for bringing behavioural change of the community. However, as the data has shown, HEWs used top-down approach of communication to practise sanitation activities. This can be one reason for sanitation problems in Bahir Dar city.

Table 8: I have Understood Communication Messages that are Disseminated by HEWs

Scales	Frequency	Percent	Cumulative Percent
Don't know	1	.6	.6
Strongly disagree	15	9.4	10.1
Disagree	95	59.7	69.8
Agree	24	15.1	84.9
Strongly agree	24	15.1	100.0
Total	159	100.0	

Among 159 participants in the questionnaire, 100 (69.1%) households responded that they did not understand communication messages disseminated by HEWs. The other 48 (30.2%) said that they understood communication messages and the rest with only one respondent did not know about it. From this, it is possible to conclude most of the community did not understand the sanitation communication messages that are disseminated by HEWs for urban sanitation.

Table 9: I Participate in Planning, Implementing and Evaluating of Sanitation Programmes

Scales	Frequency	Percent	Cumulative Percent
Don't know	9	5.7	5.7
Strongly disagree	32	20.1	25.8
Disagree	89	56.0	81.8
Agree	14	8.8	90.6
Strongly agree	15	9.4	100.0
Total	159	100.0	

From the total respondents, 121 (76.1%) households reported that they did not involve actively in planning, implementing and evaluating of sanitation programmes. The rest 29 (18.2%) agreed with the idea. Also, 9 respondents did not know about the issue. Hence, it is possible to say community participation is too limited in sanitation issues because as the data from the table above tells us that the community does not participate in the process of the programmes. Since UHEP is community-based, without active participation of the target audiences, sanitation activities cannot be effective.

Table 40: The Sanitation Problem is Directly Linked with Health Communication Practice

Scales	Frequency	Percent	Cumulative Percent
Don't know	1	.6	.6
Strongly disagree	7	4.4	5.0
Disagree	47	29.6	34.6
Agree	68	42.8	77.4
Strongly agree	36	22.6	100.0
Total	159	100.0	

Based on the question whether or not the sanitation problems are linked with the practice of health communication, 68 (42.8%) of households agree and 36 (22.6%) strongly agreed that poor sanitation is directly linked with health. But, 54 (34%) of respondents disagree this idea. From this anyone can understand that most of the respondents believed that communication gap can be the reason for poor sanitation.

Table 51: The Behaviour of the Community Affects the Sanitation of the City

Scales	Frequency	Percent	Cumulative Percent
Strongly disagree	3	1.9	1.9
Disagree	7	4.4	6.3
Agree	65	40.9	47.2
Strongly agree	84	52.8	100.0
Total	159	100.0	

Most of the respondents have positive perception about the above statement. From 159 respondents, 149 (93.7%) agreed that the behaviour of the community affects the sanitation of the city and 10 (6.3%) of the respondents disagreed with this idea. So, according to this report, the behaviour of the community is a factor for sanitation problems of the city.

The community perceived that sanitation problems are highly linked with the practice of health communication. According to their perception, ineffective practice of sanitation communication leads behavioural and attitudinal problems. Also, most of HEWs believe that lack of sanitation communication guideline is affecting their work because they focused on sanitation activities rather than changing the behaviour of the community through continuous health communication discussions. The unavailability of sanitation communication documents is a challenge for sanitation communication to create awareness and to change the behaviour of the community. Supporting this perception, the supervisors said that HEWs are mainly focused on sanitation activities during household visit. This affects the communication work of the community about urban health extension sanitation programme.

Thus, all in-depth interviewee respondents of HEWs and supervisors recognised that sanitation problem is highly linked with the practice of health communication. Supporting this (Shirk et al., 2012) said under participatory theory, having influencing policies or strategies, acquiring new skills or knowledge, building community capacity for decision making and taking conservation actions are very basic for development agendas to bring sustainable change.

Conclusion and Recommendations

Conclusion

The main objective of this study was to examine the application of health communication in urban health extension sanitation programme in Bahir Dar city. The main research question attempts to address how health communication is practiced for effective health extension sanitation programme in the city.

The findings show that heath communication is a marginalised profession in the Bureau which affects its poor practice. The communication practice is dominantly top down which hinders the active participation of the urban dwellers. As the actual work shows, one-way interpersonal communication is the dominant communication method. They perform this during the door to door visit of health extension workers. The absence of genuine participation of the community is seriously affecting the urban sanitation programme. The urban community does not participate in the process of planning, implementing and evaluation of urban sanitation programmes. The findings show that one-way interpersonal communication approach does not allow the community to participate actively in sanitation issues.

The study shows that the community does not have clear understanding about the practice of health communication in urban sanitation. Some of them have negative attitude for the house-to-house visit of HEWs. Moreover, the local community perceives the sanitation communication as information dissemination, not an empowerment process, which enables to secure a clean and healthy environment.

This research concludes that poor communication practice is one of the decisive factors for the serious sanitation problem observed in the city of Bahir Dar. On the other hand, the HEWs and supervisors criticised that the urban community did not implement sanitation activities properly. This also shows there is a communication gap between the community and the office (HEWs and supervisors) about the urban sanitation issues.

Recommendations

Urban sanitation is practically impossible without genuine community engagement and ownership starting from planning, implementation, management and to evaluation of health extension interventions. Therefore, to alleviate sanitation problems, meaningful active participation of the community has to be put in place. Behavioural change activities are not an overnight accomplishment, hence, due attention should be given for communication work until the required awareness, attitudinal, behavioural and social change is attained on urban sanitation in Bahir Dar city. Health education also should be given for the community through trainings, meetings, discussions, and other dialogical means of engagements to bring social change on urban sanitation. The mainstreaming of health communication is an important way out for tackling the problems of urban sanitation and its effects.

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References

Bahir Dar City Administration Communication Affairs Office. (2018). *The Beauty of Bahir Dar City Annual Magazine.*

Bandura, A. (1989). Social cognitive theory. In R. Vasta (Ed.), *Annals of child development vol. 6*: *Six theories of child development* (pp. 1-60). JAI Press.

Behavior change communication (BCC), learning resource package: Facilitator's guide. (2010). USAID.

Bernhardt, J. M. (2004). Communication at the core of effective public health. *American Journal of Public Health, 94*(12), 2051-2053. https://doi.org/10.2105/ajph.94.12.2051

Berry, D. (2007). *Health communication: Theory and practice*. Open University Press. Central Statistical Agency. (2006). *Ethiopia Demographic and Health Survey 2005*. The DHS Program. https://dhsprogram.com/pubs/pdf/FR179/FR179[23June2011].pdf

Central Statistical Agency. (2012). *Ethiopia Demographic and Health Survey 2011*. The DHS Program. https://dhsprogram.com/pubs/pdf/FR255/FR255.pdf

Comprehensive social and behavior change communication strategy. (2016). Ministry of Health and Family Welfare.

Crawford, E. C., & Okigbo, C. C. (2014). Strategic communication campaigns. In C. C. Okigbo (Ed.), *Strategic urban health communication* (pp. 11-24). Springer.

Department for International Development. (2001). *Addressing the water crisis: Healthier and more productive lives for poor people*. https://www.ircwash.org/sites/default/files/DFID-2001-Addressing.pdf

Edinyang, S. D. (2016). The significance of social learning theories in the teaching of social studies education. *International Journal of Sociology and Anthropology Research, 2*(1), 40-45.

Federal Ministry of Health. (2005). *Health Sector Strategic Plan (HSDP-III), Planning and Programming Department.*

Federal Ministry of Health. (2007). *Health Extension Programme implementations guideline.*

Federal Ministry of Health. (2013). *Sanitation and Hygiene Strategic Action plan (SAP) final edited version* [Unpublished].

Federal Ministry of Health. (2016). *National Health Promotion and Communication Strategy 2016-2018* [Unpublished].

Federal Ministry of Health. (n.d.). *National Health Communication Strategy of Ethiopia 2005-2014* [Unpublished].

Federal Ministry of Health. (n.d.). *Urban health extension package implementation guideline, 2009* [Unpublished].

Fox, E. (2012). Rethinking health communication in aid and development. In R. Obregon, & S. Waisbord (Eds.), *The handbook of global health communication* (pp. 52-69). John Wiley & Sons.

Hargie, O., Dickson, D., Boohan, M., & Hughes, K. (1998). A survey of communication skills training in UK Schools of Medicine: Present practices and prospective proposals, *Medical Education, 32*, 25-34. https://doi.org/10.1046/j.1365-2923.1998.00154.x

Horányi, Ö. (2001). On communication in the public sphere. In B. Buda, & E. Sárközy (Eds.), *Közéléteskommunikáció [Public sphere and communication]* (pp. 30–47). Budapes Akadémiai.

Integrated Solid Waste Management. (2018). *Bahir Dar City Administration; integrated solid waste management strategic action plan*.

Mefalopulos, P. (2003). *Theory and practice of participatory communication: The case of the FAO project "Communication for Development in Southern Africa*" [Doctoral Dissertation, University of Texas]. UT Electronic Theses and Dissertations. Ministry of Health, Federal Democratic Republic of Ethiopia. (2005). *National Hygiene and Sanitation Strategy for Ethiopia*. Cmpethiopia.org. https://www.cmpethiopia.org/media/national_hygiene_and_sanitation_strategy_for_ethiopia_oct_2005/(language)/eng-GB

Ministry of Health, Federal Democratic Republic of Ethiopia. (2006). *National Hygiene and "On-site" Sanitation Protocol*. https://www.wsp.org/sites/wsp/files/publications/621200784404_EthiopiaNationalHygieneAndSanitationProtocolAF.pdf

Ministry of Health, Federal Democratic Republic of Ethiopia. (2007). *Health Extension Programme in Ethiopia profile*. Health Extension and Education Center.

Ministry of Health, Federal Democratic Republic of Ethiopia. (2017). *Ethiopia Public Health Emergency Communication Guide*. http://www.moh.gov.et/ejcc/sites/default/files/2020-07/Ethiopia%20Public%20Health%20Emergency%20Communication%20Guide.pdf

Muturi N. (2005). Communication for HIV/AIDS prevention in Kenya: Socio-cultural considerations. *Journal of Health Communication, 10*(1), 77-98. https://doi.org/10.1080/10810730590904607

Parekh, A. K. (2017). Public health communications: Lessons learned from the affordable care act. *American Journal of Public Health, 107(*5), 639-641. https://doi.org/10.2105/AJPH.2017.303737

Sanitation and hygiene advocacy and communication strategy framework 2012-2017. (2012). Ministry of Drinking Water and Sanitation, Government of India.
Schiavo, R. (2007). *Health communication: From theory to practice* (2nd ed.). John Wiley & Sons.
Tafere, Y., Woldie, M., Assefa, H., & Aragaw, A. (2014). Utilisation of environmental health services of urban health extension program and associated factors in Debretabor Town, North West Ethiopia: Cross sectional study. *Science Journal of Public Health, 2*(5), 494-501. https://doi.org/10.11648/j.sjph.20140205.28
The world health report 1998: Life in the 21st century: A vision for all. (1998). World Health Organization. https://www.who.int/whr/1998/en/
United Nations Children's Fund. (2005). *Strategic communication for behaviour and social change in South Asia*. https://www.faithtoactionetwork.org/resources/pdf/Strategic_Communication_for_Behaviour_and_Social_Change.pdf
United Nations Children's Fund. (2012). *Progress on drinking water and sanitation: 2012 update*. Reliefweb. https://reliefweb.int/report/world/progress-drinking-water-and-sanitation-2012
United Nations Children's Fund. (2013). "*The Quarter Million Initiative", FID One WASH Proposal*.
US Agency for International Development. (2010). *End of project evaluation for urban health extension programme April, 2012*. USAID: Planning guide line for urban health extension workers.
Vearey, J., Palmary, I., Thomas, L., Nunez, L., & Drimie, S. (2010). Urban health in Johannesburg: The importance of place in understanding intra-urban inequalities in a context of migration and HIV. *Health & Place, 16*(4), 694-702. https://doi.org/10.1016/j.healthplace.2010.02.007
World Health Organization. (2004). *Water, sanitation and hygiene links to health: Facts and figures.* https://apps.who.int/iris/bitstream/handle/10665/69489/factsfigures_2004_eng.pdf?sequence=1&isAllowed=y
World Health Organization. (2006). *Advocacy, communication and social mobilisation to fight TB: A 10-year framework for action*. https://www.who.int/tb/publications/tb-advocacy10yr-report/en/
World Health Organization. (2018). *Guidelines on sanitation and health*. https://www.who.int/water_sanitation_health/publications/guidelines-on-sanitation-and-health/en/
Yitayal, M., Berhane, Y., Worku, A., & Kebede, Y. (2014). Health extension program factors, frequency of household visits and being model households, improved utilization of basic health services in Ethiopia. *BMC Health Services Research, 14*(156*).* https://bmchealthservres.biomedcentral.com/articles/10.1186/1472-6963-14-156