

Attitudes of Ghanaians toward environmental sanitation: Evidence from residents of Asamankese in the Lower West Akim Municipality of Ghana

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Abstract

This study, conducted at Amanfrom in Asamankese in the Eastern Region of Ghana, examined attitude of residents towards environmental sanitation. The study adopted the mixed-methods sequential explanatory design by combining interviews, questionnaires and field observation in the data collection processes. The researcher sampled 140 study participants, comprising 11 officials from the Sanitation and Health Inspectorate Unit of the Lower West Akim Municipal Assembly (LWAMA) and Zoom Lion Company Ghana Limited. Again, 129 residents from 129 households in Amanfrom were sampled for the study. Systematic sampling was used for sampling the households. Purposive sampling was used to select the 11 officials for interview, while convenience and simple random sampling through the lottery method was employed to select the 129 residents for the study. The findings showed that most residents of Amanfrom have a poor attitude to sanitation because they have a negative culture of creating refuse dumps at any available space due to inadequate waste containers, incinerators, and public toilet facilities. This study recommended that the Health Inspectorate Unit of Lower West Akim Municipal Assembly in liaison with Zoom Lion Company Ghana Limited should provide enough waste containers as well as other forms of refuse receptacles, permanent land space and public toilet facilities for waste disposal. They should also organize periodic clean-up exercise, regular waste collection, and environmental education as preventative measures of addressing the poor environmental sanitation attitude among residents in Amanfrom.

Key Words: Environmental attitude, environmental sanitation attitude, risky attitude, preventative measures, environmental education.

Introduction

The phenomenon of poor environmental sanitation which is believed to be caused by human attitude and behaviour has crept into several communities in Ghana, including Amanfrom a suburb of Asamankese in the Eastern Region of Ghana. A report by the World Health Organisation (WHO) noted that Ghana is currently the 7th dirtiest country globally (Kofi-Tse, 2015). A cursory observation of Amanfrom revealed that waste generated from cooking, commercial, industrial and other human related activities are disposed indiscriminately at unauthorised places such as gutters, streets, big drains, and open places. Efforts and measures put in place by community leaders, including assembly members and other stakeholders at in the Lower West Akim Municipal Assembly (LWAMA) in maintaining a clean environment have yielded very little result. However, there is no published work which specifically examined environmental sanitation attitude among residents of Amanfrom.

Purpose of the study

This study sought to investigate the attitude of residents of Amanfrom towards environmental sanitation.

Research question

What is the attitude of residents of Amanfrom towards environmental sanitation?

Theoretical review

This study was guided by Ajzen’s (2002) Theory of Planned Behavior (TPB), which provides a framework for studying human action. The combination of the three considerations (attitude towards the behaviour, subjective norm, and perception of behavioural control) guide the individual to form a behavioural intention. This theory is relevant to this study because perceptions like behaviour are influenced by our knowledge, beliefs, values, and norms but can be formed without experience and knowledge of the person.

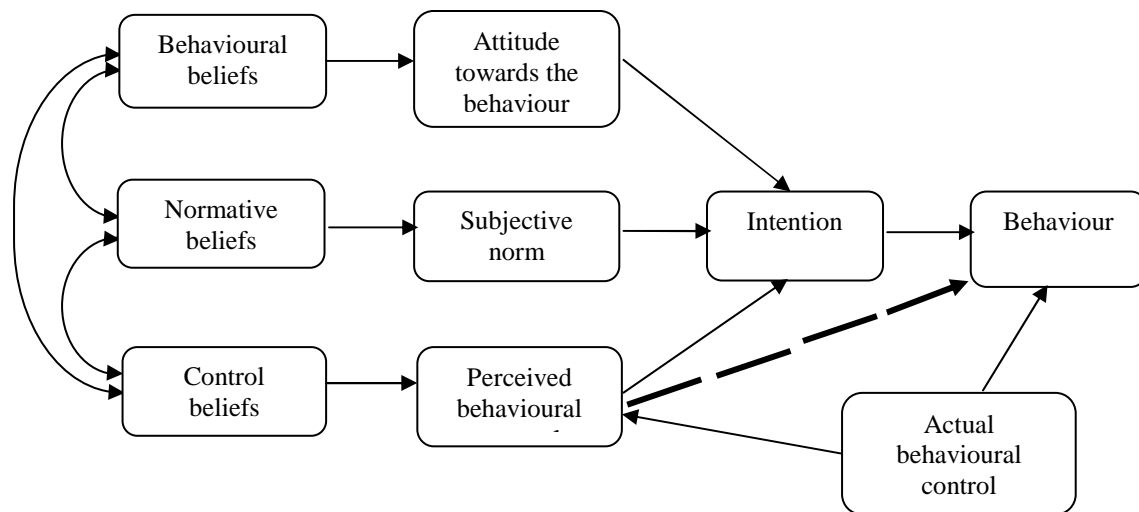


Figure 1: The Theory of Planned Behaviour [TPB]

Source: Adapted from Ajzen (2002)

Literature review

There is no consensus on a definition for attitude, so explaining it is problematic. The concepts of attitude and environmental sanitation attitude have therefore been defined in various ways by various researchers, usually depending on their specific theoretical review and the constructs they investigate. In the perspective of Isangeidigi (2007), attitude is the way of feeling, learning, thinking, and behaviour to sustain thought that enforced cleanliness. Schultz (2001) explains that attitudes are often associated with multiple and even contradictory values. In the context of this study, attitude refers to individual learnt ideas, concepts and perceptions that is generated towards an object, environment or people. The construct of attitude is not easily measurable. This is because as a theoretical construct, it is not accessible through direct observation as indicated by Fishbein and Ajzen, as cited in Dillon and Gayford (1997). Attitude must be inferred from measurable responses such as direct observation of behaviour. Since this is often difficult to achieve, responses such as statements of intentions are frequently used as they are considered to be more reliable predictors of behaviour.

In the opinion of Milfont and Duckitt (2010), environmental attitude is a psychological tendency expressed by evaluating the natural environment with some degree of favour or disfavour. It is the way of feelings, learning, thinking and behaviour to sustain a taught than enforced cleanliness as noted by Isangedigui (2007). Schultz, Silver, Tabanico and Khazian (2004) also explain it as the collection of beliefs, effect and behavioural intentions a person holds regarding an environmentally related activities or issues. In the view of Whynie (2003), it is a relatively stable and predominantly learnt disposition of an individual towards specific object (people, things, ideas or the physical environment). It is in a way perceived as how to be in proper relationships with regard to

one's environment. That is, how an individual shows concern and act friendly or favourably towards the environment. Other authors argue that environmental attitude is the concern one shows towards the physical environment (Dunlap & Jones, 2002). Muammar (2002) posits that environmental attitude is about the perception of values about a given environmental issue. Drawing from the views expressed, environmental attitude in this study is conceptualized as the collection of beliefs, affection and behavioural intention a person holds regarding environmentally related activities or issues. This implies environmental attitude has to do with the way a person directly relates to all the things and activities surrounding him or her.

Most people have non-charlatan attitude towards waste disposal. Human attitudes that lead to filthy environment are influenced by waste generation and disposal in some towns and villages in Ghana, including Asamankese-Amanfrom. This assertion is collaborated by the views of Adalakum (2003). In his view, the promotion of environmental quality depends on how individuals and community see themselves in relation to their environment. He believes that illiteracy, ignorance, poverty and greediness are some major contributors of environmental pollution because each influences people's attitude and behaviour towards the environment. In reality, these are some of the determinants of negative environmental sanitation attitude among the residents of Amanfrom. A study conducted in Ghana at Kodiabe which involved direct observations at disposal site from five divisions focused on the way in which refuse materials were disposed. Another study which was also conducted in Nigeria showed that the perception of domestic waste disposal practices indicate people's attitude and perception of sanitation issues (Banjo, Adebambo & Haight, 2009). The findings of these studies indicated negative environmental sanitation attitudes among people in the study settings.

The determinants of environmental attitude could be explained in line with the traditional thinking in the field of environmental education which posits that we can change behaviour by making human beings more knowledgeable about the environment and its associated issues. It implies that knowledge increases attitude or awareness which in combination would motivate environmentally responsible behaviours. That is, behaviour in general is supported by knowledge and attitude but there is not a direct cause and effect progression from knowledge to attitude to behaviour (Monroe, Day & Graiser, 2000). For instance, Hook (2008) observes that a person's level of ignorance of the environment can be said to be positively related to the degree of his or her attitude towards the environment. That is, human ignorance is a function of an attitude that will enable one to display a kind of attitude towards the environment. This implies that an individual's uncertainty about the environment, and issues regarding the environment will determine his or her attitude towards environmental sanitation.

Since cultural derivatives, beliefs, perception and attitudes are learned responses set; they can be changed by educating individuals to be conscious of their environment. This means people's negative attitude towards the environment could be changed for better through environmental education and awareness owing to the fact that people's negative behaviour is regarded as a major barrier to the successful implementation of pro-environmental sanitation (Evison & Read, 2001). This implies that studying the way people perceived various environmental problems is very important in the formulation of decision about environmental sanitation and attitude (Babitski, 2011). This seems to suggest that if an effective waste management system is to be put in place, people's perceptions are critical and must be considered in order to modify their attitude by inculcating in them environmental awareness to achieve sanitary environmental condition in a community. Hence, human perception forms an integral part of attitude which can be influenced to enable an individual to behave pro-environmentally. Therefore, attitudinal change is the cardinal objectives of environmental education and key determinant of positive environmental sanitation attitude.

Methodology

The research design

This research adopted quantitative and qualitative paradigms using the mixed-methods sequential explanatory design. This design allowed the researcher to explore the complex attitudinal pattern of the social unit, particularly the environmental sanitation attitude among residents of Amanfrom.

Population, sample size, sampling techniques and procedures: The target population for this study was 1,200 of Amanfrom, with a male-female ratio of 510:630 (Ghana Statistical Service, 2010) with the household as the unit of analysis. Systematic sampling technique was employed by using a sampling interval of three with every fourth house included in the sampling process. The linear layout of housing units enabled the use of a uniform sampling and this ensured that the sampling interval was drawn from across the whole study area. The researcher sampled 140 study participants from 129 households for the study. Systematic sampling was used for sampling the households, while convenience and simple random sampling through the lottery method were used to select the 129 residents for the study. The convenience sampling was used for easy accessibility, geographical proximity and availability of study participants at a given time as noted by Dornyei (2007). Again, purposive sampling was used to select the 11 officials for interview.

Research methods and instrumentation: The data collection techniques for this study were administration of questionnaire, face-to-face interview and observation. Thus, questionnaire semi-structured interview guide, and observation checklist were used as tools to gather data for the study. The questionnaire which contained thirty-one (31) closed-ended items was used to collect data from residents in selected households within the Amanfrom community. The semi-structured interview guide was used to collect data from twenty (20) conveniently and purposively sampled residents and officials of Zoom Lion Ghana Limited and Lower West Akim Municipal Assembly (LWAMA). Structured observation checklist and camera were used to capture direct field observation of attitude of the residents regarding indiscriminate disposal of refuse and collection methods used by waste management companies. The instruments contained items on the demographic data, and environmental sanitation attitude.

Data collection and analysis procedures: For face validation, the instruments were given to colleague social studies tutors and students for peer review. Regarding content validation, the instruments were given to experts in the fields of environmental sanitation, social studies education as well as the research supervisor for review. In order to ensure reliability of the research instrument, a pre-test was carried out on twenty (20) residents of Asamankese-Noyem in the Eastern Region of Ghana. The response from the pilot test was subjected to Cronbach's alpha reliability analysis using version 22 of Statistical Package for Social Sciences (SPSS) which yielded a reliability coefficient (r) of 0.72. This indicated that the instrument was reliable as noted by Tavakol, Mohagheghi, and Dennick (2008) who stated that the acceptable values of alpha, ranges from 0.70 to 0.95 for research instrument to be considered reliable.

Results

Data presentation and analysis: The data was presented and analysed under two basic themes. These are: demographic characteristics, and environmental sanitation attitude among residents of Amanfrom.

Demographic information

Table 1: Demographic characteristics of respondents

| Participants | Gender | Frequency | Percentage |
|------------------------------|--------|-----------|------------|
| Literate residents | Male | 20 | 14.3 |
| | Female | 40 | 28.6 |
| Uneducated and semi-literate | Male | 20 | 14.3 |
| | Female | 48 | 34.3 |
| Assembly members | Male | 1 | 0.7 |

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|----------------------------|--------|------------|------------|
| | Female | 0 | 0.0 |
| Workers from Zoom Lion | Male | 3 | 2.1 |
| Company Limited, Ghana | Female | 3 | 2.1 |
| Health sanitary inspectors | Male | 2 | 1.4 |
| | Female | 3 | 2.1 |
| Total | | 140 | 100 |

Source: Field data (2016)

It is observed from the data in Table 1 that a moderate number, which is nearly 49% of the sampled resident respondents were illiterates and semi-literates, and the majority of which were females (34%). Illiteracy among the residents could be a significant factor which negatively influences their attitudes, and this may lead to filthy environment. This assertion is collaborated by the views of Adelakum (2003) who believes that illiteracy is a major contributor to environmental pollution because it influences people's attitude and behaviour towards the environment. Even though this study found no causal link between illiteracy and poor environmental sanitation attitude, it is a significant determinant of negative environmental sanitation attitude among the residents of Amanfrom.

Environmental sanitation attitude among residents of Amanfrom in the Eastern Region of Ghana

This theme explored the research objective which assessed the environmental sanitation attitude among residents of Amanfrom. The data revealed that most residents of Amanfrom had poor attitude to sanitation.

Table 2: Feeling of residents toward indiscriminate disposal of refuse

| Responses | Frequency | Percentage |
|------------------|------------------|-------------------|
| Very bad | 61 | 47.3 |
| Bad | 39 | 30.2 |
| Normal | 29 | 22.5 |
| Total | 120 | 100 |

Source: Field data (2016)

It could be seen from the above responses that the majority (77.5%) of the residents see the attitude of their neighbours towards environmental sanitation as a disturbing phenomena. This means majority of residents were aware of the environmental problems that exist in the community which stems from residents poor attitude towards the physical environment. In an interview, all the respondents acknowledged the environmental problems in the community which stems from residents poor attitude towards the physical environment. In an interview, some of the officials from the Sanitation and Health Inspectorate Unit of the Asamankese Municipal Assembly and Zoom Lion Company Ghana Limited commented as below:

The residents indiscriminately discharge solid and liquid waste into gutters and authorized places. For instance, some residents ease themselves into dark polythene bags and deposit them in the neighbourhood which is popularly called "flying parcel". 'The open defecation and littering in Amanfrom is problematic'. We educated them on the negative attitude and effects of littering the environment without any regard or respect to the environment on several occasions. They don't really care. It is worrisome. ... (Officer of the Sanitation and Health Inspectorate Unit of the Asamankese Municipal Assembly)

Complaints have been made by residents in connection with their environment. They often lament on open defecation at unauthorized places. Indeed, residents of Amanfrom had a negative culture of creating refuse dumps at any available space due to inadequate waste containers,

incinerators, and public toilet facilities. I feel bad of it.(Officer of the Zoom Lion Company Ghana Limited, Asamankese).

This finding suggests that residents did not engage in appropriate and proactive environmental attitude. This assertion buttresses the views of Starhrl (1997), in agreement with the views of Simon (1994), who opines that every resident wants his or her refuse generated to be taken away but nobody wants to take part in pro-environmental attitude.

Key finding

The main finding of this study shows that majority of Amanfrom residents had a negative attitude towards the environment.

Conclusion

The evidence gathered from this study signifies that environmental sanitation attitude among the residents of Amanfrom is risky. This is manifested in the indiscriminate disposal of waste materials into gutters, drains, unauthorized places and waste clogged drains and among others. If the situation is not seriously addressed, their livelihood, health and personal hygiene will deteriorate and this will go a long way to affect the image of the community and the country at large.

Recommendations

In view of the above findings the study makes the following recommendations:

- i. The Health Inspectorate Unit of the Lower West Akim Municipal Assembly (LWAMA) should liaise with the Zoom Lion Company Ghana Limited and other stakeholders such as the Ghana Education Service to scale-up environmental sanitation education for school children and residents of Amanfrom. This would instill in them positive attitudinal changes.
- ii. The Health Inspectorate Unit of the LWAMA should liaise with the Zoom Lion Company Ghana Limited to organize periodic clean-up exercise, regular waste collection, and environmental education as preventative measures of addressing the poor environmental sanitation attitude among residents in Amanfrom.
- iii. The Health Inspectorate Unit of the LWAMA should provide enough waste containers as well as other forms of refuse receptacles, permanent land space and public toilet facilities for waste disposal, especially at areas where commercial activities like hawking and selling takes place in order to minimize the dropping of litter indiscriminately.
- iv. The Health Inspectorate Unit of the LWAMA should strictly enforce sanitation rules and bye-laws on refuse disposal.

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