



Research Paper

**PERCEPTION, ATTITUDE AND KNOWLEDGE OF CANCER AMONGST
GENERAL POPULACE IN ACCRA, GHANA**

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Abstract

Cancer is among the leading causes of death worldwide. Generally, worldwide trends show that in developing countries going through rapid societal and economic changes, the shift towards lifestyles typical of industrialized countries leads to a rising burden of cancers associated with reproductive, dietary, and hormonal risk factors. The aim of this paper was to determine cancer knowledge, attitudes, and practices (KAP) among residents of Accra. An extensive questionnaire of cancer KAP profiles designed and used previously by the author was employed in the study. The self-administered and self-coding questionnaire was distributed after explaining the aims of the study and obtaining respondent consent. The findings of the study revealed that all respondents admitted they have heard of cancer before and most (91%) of them agreed they heard of cancer from health workers and medical/nursing staff. The study showed that the most common type of cancer known to all respondents was breast cancer although other types were known by some of them. The findings also revealed that among all the cancer treatments, surgery was the most (90%) common treatments known to all although few of them knew about chemotherapy. Although all respondents were of the view that smoking can post a risk to cancer, not all respondents agree that some cancer can be prevented. Majority of the respondents were uncertain as to whether overweight put a person at the risk of getting cancer or not. Majority (94.2%) of the respondents agreed that cancer cannot be transmitted through contact from one person to the other. However, an insignificant number of them thought otherwise and others had no idea. Majority of the respondents believed that some artificial food additives can cause cancer whereas a significant number of them said it cannot. Some of them also had no idea. Also, most of them believed poor quality diet can cause cancer and a significant number of them said it cannot and some of them had no idea. Again, majority (83.3%) of the respondents agreed that processed meat/hotdogs is likely linked to colon cancer although others believed that vegetables is likely linked to colon cancer while others believed peanut is likely linked to colon cancer. Generally, the findings show that not all respondents are well informed on the causes of cancer. Undoubtedly, there is

the need for further education to get all people educated and those who are already educated well informed.

Key words: Cancer, Chemotherapy, Risk, Respondents, lifestyles.

INTRODUCTION

Cancer is among the leading causes of death worldwide, accounting for 8.2 million deaths in 2012 out of which 70% of this figure occurred in the regions of Africa, Asia and Central and South America (Ferlay *et al.*, 2012). Human exposure to wide variety of agricultural, industrial and medicinal chemicals that are constantly added to the environment has increased markedly over the past decade and most of these compounds are mutagenic as well as potential carcinogens, i.e. the cause of malignant transformations in humans (Wogan *et al.*, 2004). It is estimated that 90% of all carcinogens are mutagens (Wogan *et al.*, 2004).

Incidence has been increasing in most regions of the world, but there are huge inequalities between rich and poor countries. Incidence rates remain highest in more developed regions, but mortality is relatively much higher in less developed countries due to a lack of early detection and access to treatment facilities. Generally, worldwide trends show that in developing countries going through rapid societal and economic changes, the shift towards lifestyles typical of industrialized countries leads to a rising burden of cancers associated with reproductive, dietary, and hormonal risk factors.

Cancer arises from the transformation of one single cell from a normal cell into a tumour cell leading to a multistage process, typically a progression from a pre-cancerous lesion to malignant tumours. These changes are the result of the interaction between a person's genetic factors and three categories of external agents, including: physical carcinogens, chemical carcinogens and biological carcinogens. An estimated percentage of cancer deaths attributed to different factors in the United States and the United Kingdom revealed that diet represented the highest factor (41%) responsible for cancer deaths (Roush *et al.*, 1980). Evidence indicate that more than 30% of cancer deaths could be prevented by modifying or avoiding key risk factors including reduction of carcinogens in the food chain (Roush *et al.*, 1980).

Epidemiological studies have been used determine the relationship between a cancer suspect chemical and a human population over a long period of time. For example, animal studies that involve the use of a large sample of test animals have been used to study the effect of mutagens and suspected carcinogens on animal cells and tissues employing varying doses and time parameters. Experiments with animals are based on the premise that chemicals that produce cancer in animals will have similar effects on human cells. Most known human carcinogens produce cancer in experimental animals

The objective of the study was to assess the knowledge, attitude of cancer amongst residents in the greater Accra Region of Ghana.

MATERIALS AND METHODS

Research Design

A survey was employed to assess the perception, attitude and knowledge of cancer amongst the general populace in Accra, Ghana

Study Area

The study was conducted in the Greater-Accra region. The Greater-Accra region is one of the ten (10) regions of Ghana. It is located in the southern part. It is also the capital region of Ghana and this makes it a cosmopolitan region with diverse groups of culture and nationals. It is one of the densely populated regions in Ghana. The Greater-Accra region is the only region in Ghana whose present form presents has all classes of the working populace and students alike. . It is for this reason that the region was chosen for the study..

Data Collection

An interviewer administered, pre-tested, semi-structured questionnaire was used to collect data from respondents. Questionnaires were administered to (120) respondents in the Greater-Accra

region. Respondents were educated on how to answer the questionnaire appropriately. The questionnaires were filled by ticking and writing where necessary. Data analysis was captured using Excel 2007, this involve mainly frequencies, percentages, mean and standard deviations. Data analysis was done using Statistical Package for Social Science (SPSS) version 11.0.0 for windows.

Study Population and Sample Size

The study population included all people ordinarily resident in Accra. The sample size for the study was 120. Simple randomized sampling technique was used to obtain the study sample

Ethical issues

Oral consent was obtained from respondents after the objectives of the study were explained. Besides recording the demographic information, the questionnaire included questions on General knowledge/ risk factors of cancer, knowledge of the causes of cancer, attitudes and perception of cancer.

Data Collection and analysis: Data was entered and analyzed using Statistical Package for Social Sciences 11.5 (SPSS 11.5). Descriptive statistics of socio-demographic information, knowledge, attitudes and practices of participants regarding cancer were determined and reported in the forms of mean, standard deviation, proportions and percentages

RESULTS

Demographic Data

This section deals with descriptive analysis of the demographic characteristics of the respondents such as gender, marital status, designation of respondents, employment status, educational background, and age of respondent.

Figure 1: Sex of Respondents

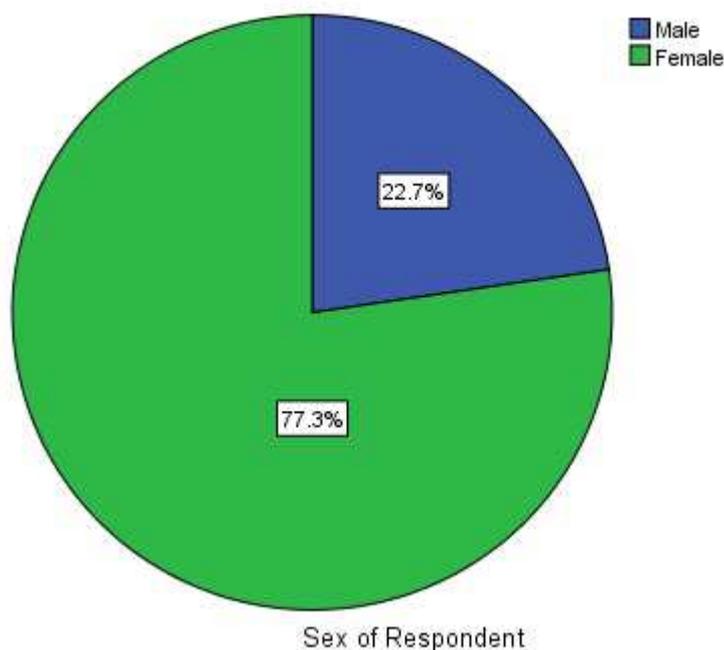


Figure 1 shows the sex distribution of respondents. 77.3% of the respondents were females whereas 22.7% were males. This shows that there were more female respondents than male respondents.

Figure 2 Age of Respondents

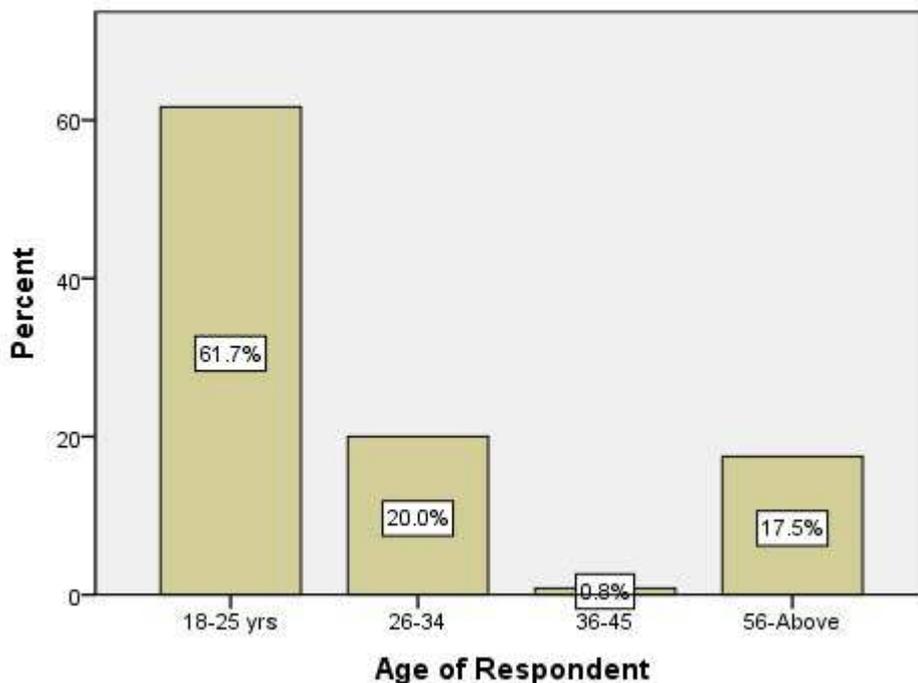


Figure 2 shows the age distribution of respondents. 61.7% of the respondents were in the age range, 18-25 years, 20% of them were in the age range 26-34 years, 17.5% of them were 56 years and above and 0.8% of the respondents were in the age range 36-45 years. This shows that all respondents were adults, in the active labour force and possible might have heard of cancer before.

Figure 3: Educational Background

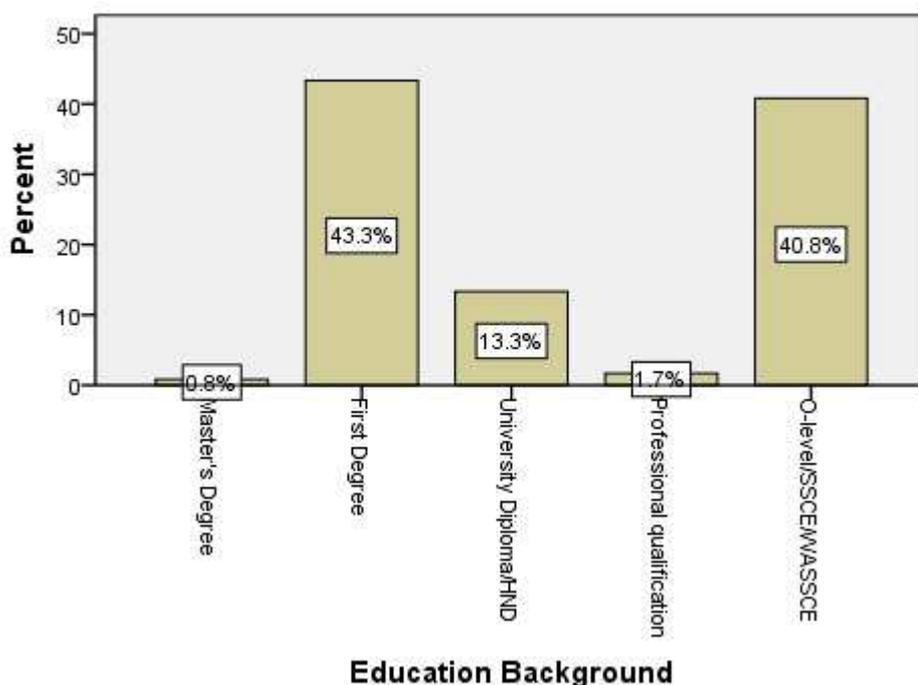


Figure 4.3 shows the educational background of respondents. 43.3% of the respondents were first degree holders, 40.8% were O-level/SSCE/WASSCE holders, 13.3% were University/Diploma/HND holders, 1.7% had professional qualifications, and 0.8% were master's degree holders. This shows that all respondents were educated and have an idea of what cancer is about.

Figure 4 Designations of Respondents

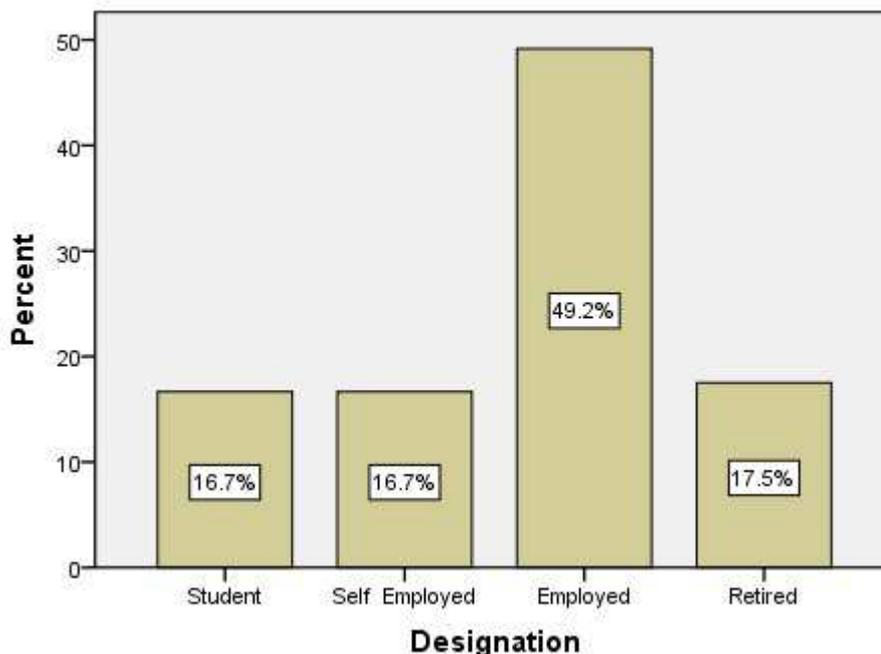


Figure 4 shows the designation of respondents. 49.2% of the respondents were employed, 17.5% of the respondents were retired, 16.7% each of the respondents were self-employed and students. These respondents were selected in order to have varying views of the various groups on the knowledge, attitude and perception of cancer among residents in Accra.

Figure 5 Employment statuses of Respondents

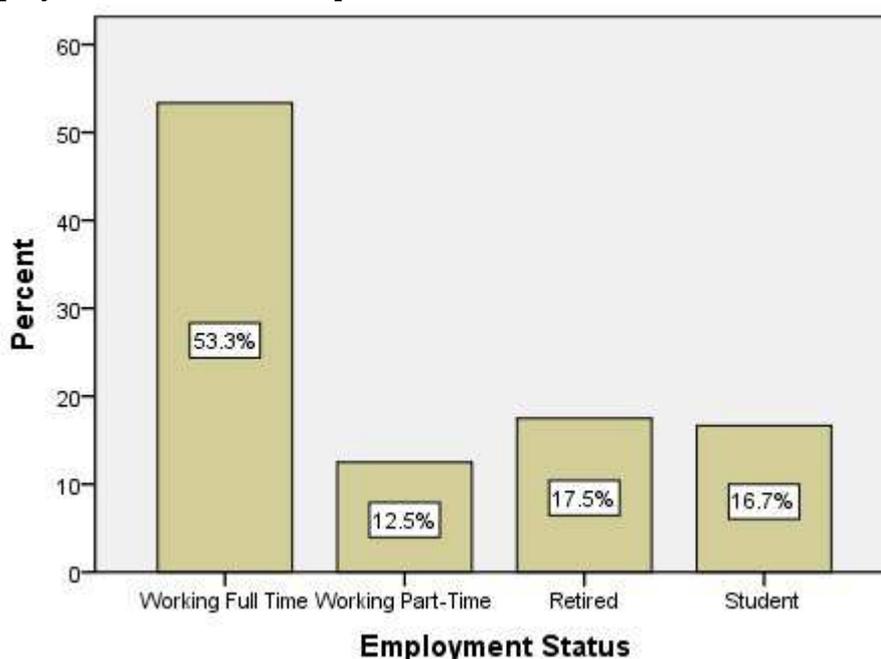


Figure 5 shows the employment statuses of respondents. 53.3% of the respondents were working full time, 17.5% of the respondents were retired, 16.7% of them were students and 12.5% of them were part time workers. This shows that majority of the respondents were working full time.

Figure 6 Marital status

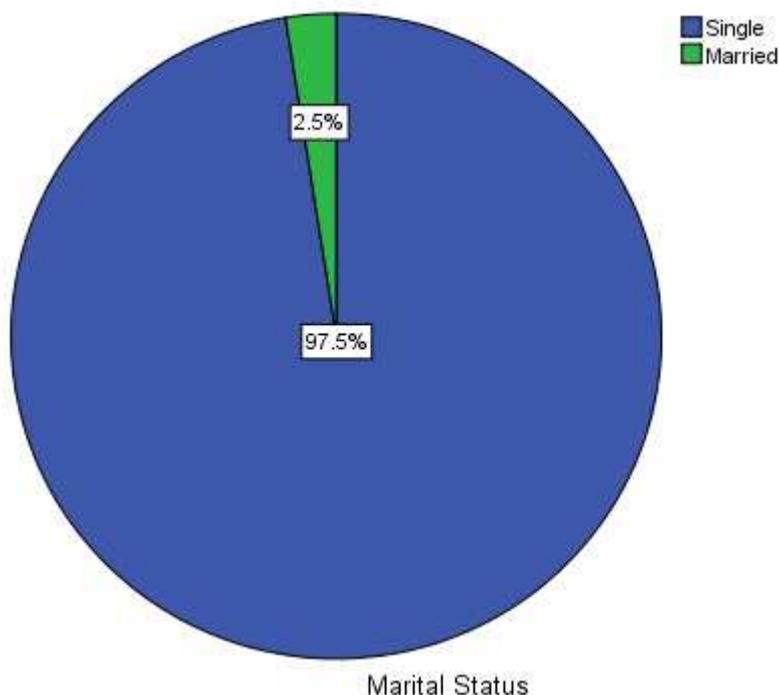


Figure 6 shows the marital status of respondents. 97.5% of the respondents were married whereas 2.5% were not married. This shows that there were more married respondents than singles.

Figure 7 Household annual incomes

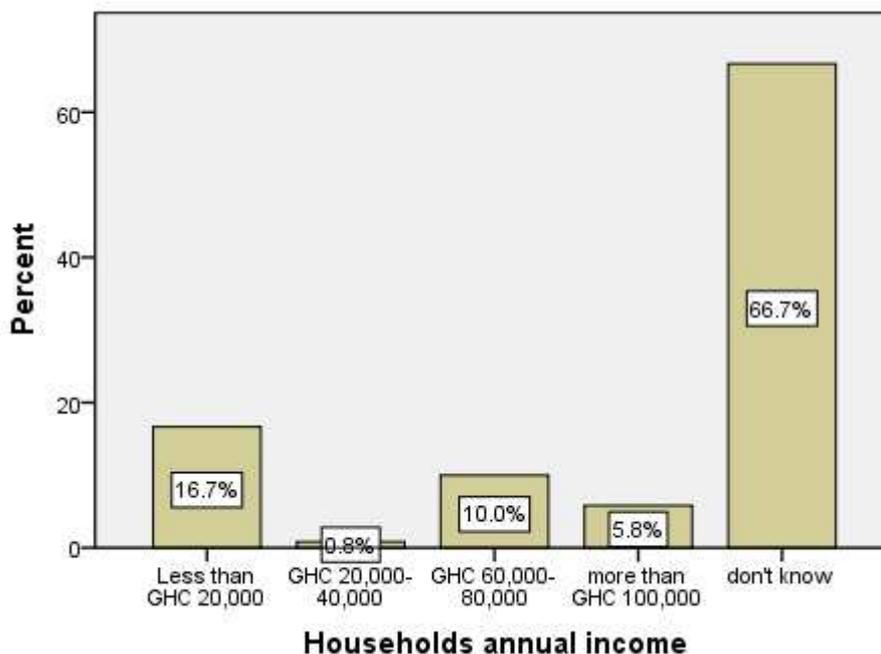


Figure 7 shows the response of the respondents when they were asked of their household annual income. 66.7% of the respondents said they do not know their household annual income. 16.7% of them said their household annual income was less than GH¢20,000, 10% of them said their household annual income was in the range of GH¢60,000-GH¢80,000, 5.8% of the respondents said their household annual income was more than GH¢100,000 and 0.8% of them said their household annual income was in the range GH¢20,000-GH¢40,000. It is clear that most of the respondents do not know their household annual income.

General knowledge on cancer

In order to examine the general knowledge on cancer, respondents were asked a number of questions relating to cancer. Their responses are depicted in Figure 4.8 and Tables 4.1-4.6.

Figure 8: Respondents awareness of cancer

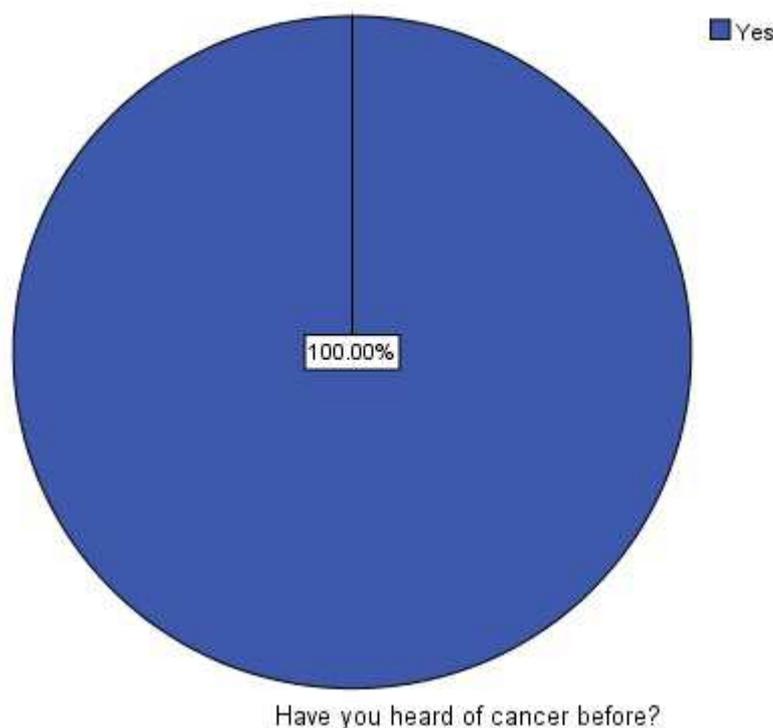


Figure 8 shows responses of the respondents when they were asked whether they have heard of cancer before or not. All (100%) respondents said they have heard of cancer before.

Table 1: If yes Source of knowledge on cancer

	Frequency	Percent	Cumulative Percent
Medical /nursing staff	36	30.0	30.5
Community health workers	1	.8	31.4
Others	74	61.7	94.1
Total	9	7.5	100.0
	120	100.0	

Table 4.1 shows the responses of the respondents when they were asked the source of their knowledge on cancer. 61.7% of the respondents said that they heard of cancer from health workers, 30% said they heard of cancer from Medical/ nursing staff, 7.5% said they heard of cancer from others, and 0.8% said they heard of cancer from the community. It is clear that most of them heard of cancer from health workers.

Table 2 Types of cancer known to respondents

	Frequency	Percent	Cumulative Percent
Breast	57	47.5	47.5
breast and cervical	7	5.8	53.3
breast and throat	7	5.8	59.2
breast, prostate and throat	3	2.5	61.7
lungs, breast, cervical and throat	7	5.8	67.5
lungs and breast	6	5.0	72.5
lungs, breast, prostate, cervical and throat	9	7.5	80.0
lungs, breast, prostate, cervical, abdominal and throat	24	20.0	100.0
Total	120	100.0	

Table 2 shows the responses of the respondents when they were asked which type of cancer they have heard about. 47.5% of the respondents said that they have heard about breast cancer. 20% of the respondents said that they have heard about lungs, breast, prostate, cervical abdominal and throat cancer. 7.5% said that they have heard about lungs, breast, prostate, cervical and throat cancer. 5.8% each of the respondents said that they have heard about lungs, breast, cervical and throat cancer, breast and throat cancer, and breast and cervical cancer. 5.0% of the respondents said that they have heard of lungs and breast cancer and 2.5% said that they have heard about breast, prostate and throat cancer. It is clear that the most common cancer known to all respondents was breast cancer

Table 3 State the cancer treatment methods you know?

	Frequency	Percent	Cumulative Percent
Surgery	108	90.0	90.0
chemotherapy	12	10	99.2
Total	120	100.0	

Table 3 shows the responses of the respondents when they were asked to state the cancer treatment methods they know. 90.0% of the respondents stated surgery. 10% stated chemotherapy. This shows that majority of the respondents know that surgery is a treatment method for cancer.

Table 4 knowledge on prevention and risk factors of cancer

	Yes	No	Don't Know
can Some cancer be prevented	107(89.2%)	13(10.8%)	-
Can smoking post a risk to cancer	120 (100%)		
Does overweight poses a risk to cancer	42(35.0%)	23(19.2%)	55(45.8%)

From table 4 100% of the respondents said that smoking can post a risk to cancer. When respondents were asked whether some cancer can be prevented, 89.2% of them said some cancer can be prevented whereas 10.8% said some cancers cannot be prevented. Also when respondents were asked whether overweight poses a risk to cancer, 35.0% of the respondents said yes whereas 19.2% said no. 45.8% of the respondents however had no idea as to whether overweight poses a risk to cancer. This shows that all the respondents are of the view that smoking can post a risk to cancer. However, not all respondents agree that some cancer can be prevented. Again, the risk overweight poses to cancer is uncertain.

1.3 Knowledge on the causes of cancer

In order to determine the knowledge on causes of cancer, respondents were asked a number of questions. Their responses are shown in Tables 5 and 6.

Table 5 Causes of cancer

	Yes	No	Don't Know
Can cancer be transmitted through contact from one person to the other	6(5.0%)	113(94.2%)	1(0.8%)
Some herbal medicine cause cancer	39(32.5%)	14(11.7%)	67(55.8%)
Heavy drinking can increase your chances of getting cancer	77(64.2%)	8(6.7%)	35(29.2%)
Some artificial food additives can cause cancer	84(70%)	14(11.7%)	22(18.3%)
Poor quality diet can cause cancer	64(53.4%)	25(20.8%)	31(25.8%)

Table 5 shows the responses of the respondents when they were asked whether cancer can be transmitted through contact from one person to the other, whether some herbal medicine cause cancer, whether heavy drinking can increase a person's chances of getting cancer, whether some artificial food additives can cause cancer and whether Poor quality diet can cause cancer or not. 94.2% of the respondents said cancer cannot be transmitted through contact from one person to the other whereas 5.0% said cancer can be transmitted through contact from one person to the other. 0.8% of the respondents said they had no idea. 32.5% of the respondents said some herbal medicine cause cancer whereas 11.7% of them said some herbal medicine does not cause cancer. 55.8% had no idea whether some herbal medicine cause cancer or not. 64.2% of the respondents said heavy drinking can increase one's chances of getting cancer whereas 6.7% of them said heavy drinking cannot increase a person's chances of getting cancer. 29.2% of the respondents have no idea. 70% of the respondents said that some artificial food additives can cause cancer whereas 11.7% of them said some artificial food additives cannot cause cancer. 18.3% of them had no idea. 53.4% of the respondents said poor quality diet can cause cancer whereas 20.8% said poor quality diet cannot cause cancer. 25.8% of the respondents had no idea whether poor quality diet can cause cancer or not. From the responses, it is clear that majority of the respondents are not well informed on the causes of cancer.

Table 6 Food likely linked to colon cancer

	Frequency	Percent	Cumulative Percent
Vegetables	11	9.2	9.2
Processed meat/hotdogs	100	83.3	92.5
Peanut	9	7.5	100.0
Total	120	100.0	

Table 6 shows the responses of the respondents when they were asked which food is likely linked to colon cancer. 83.3% of the respondents said that processed meat/hotdogs is likely linked to colon cancer, 9.2% said that vegetables is likely linked to colon cancer, and 7.5% said that peanut is likely linked to colon cancer. Majority of the respondents are in agreement that processed meat/hotdogs is likely linked to colon cancer.

1.4 Attitudes and perception of cancer

In order to examine people's attitudes and perception of cancer, respondents were asked a number of questions. Their responses are shown in Table 7

Table 7

	Yes	No	Don't Know
I would like to detect cancer early in order to save my life	109(90.8%)	4(3.3%)	7(5.8%)
All individuals are at risk of getting cancer	90(75%)	23(19.2%)	7(5.8%)
Traditional treatment is best for cancer	7(5.8%)	63(52.5%)	50(41.7%)
Cancer is a punishment for sins		104(86.7%)	16(13.3%)
Cancer is very rare and affects only those who are unlucky	12(10%)	94(78.3%)	14(11.7%)
Multiple sexual partners causes cancer	10(8.3%)	69(57.5%)	41(34.2%)

Table 7 shows the responses of the respondents when they were asked if they would like to detect cancer early in order to save their lives or not, whether all individuals are at risk of getting cancer or not, whether traditional treatment is best for cancer or not, whether cancer is a punishment for sins or not, whether cancer is very rare and affects only those who are unlucky and whether multiple sexual partners causes cancer or not. 90.8% of the respondents said they would like to detect cancer early in order to save their lives whereas 3.3% of them said no. 5.8% had no idea. 75% of the respondents said all individuals are at risk of getting cancer whereas 19.2% of them said all individuals are not at risk of getting cancer. 5.8% of them had no idea. Also 52.5% of the respondents said traditional treatment is not best for cancer whereas 5.8% of them said traditional treatment is best for cancer. 41.7% of them however had no idea. 86.7% of the respondents said cancer is not a punishment for sins and 13.3% said they don't know whether cancer is a punishment for sins or not. Moreover, 78.3% of the respondents said cancer is not very rare and does not affect only those who are unlucky whereas 10% of the respondents said cancer is very rare and affects only those who are unlucky. 11.7% of them had no idea. Finally, 57.5% of the respondents said multiple sexual partners 'does not cause cancer' whereas 8.3% of the respondents said multiple sexual partners causes cancer. 34.2% had no idea whether multiple sexual partners causes cancer or not. From the responses, not all respondents have the right attitude towards cancer and also, people have wrong perception about cancer.

DISCUSSION

One hundred and twenty (120) respondents were engaged in this study. The results from the study revealed that the majority (61.7 %) of the respondents were between the ages of 18-25, followed by ages 26-34 which represent 20% and the least being 0.8 % for ages 36-45 (Table ?). The majority of the respondents (73.3 %) were females while males represented 22.7 %. Educational backgrounds of respondents in this study were found to be: first degree holders (43.3%), O-level/SSCE/WASSCE holders (40.8%), University/Diploma/HND holders (13.3%), professional qualifications (1.7%) and master's degree holders (0.8%). This shows that all respondents had some level of formal education suggesting they have an idea of what cancer is about. This was confirmed by results of respondents' knowledge on cancer in which revealed that all (100%) of the respondents had knowledge on cancer. This finding differs from a similar work carried out by (Abdul-Aziz, 2012) who reported a lower percentage of knowledge about cancer in respondents. Interestingly when they were asked the source of their knowledge on cancer, 83% of the respondents said that they heard of cancer from health workers or Medical/ nursing staff, while 7.08% said they heard of cancer from the community. This is in contrast with Phongsavan *et al.*, (2010) who reported that the media were the main source of knowledge (59%), health care provider (30%), and friends (23%) in a similar study in Sweden.

The respondents when asked which type of cancer they have heard about, 47.5% of the respondents said that they have heard about breast cancer. 20% of the respondents said that they have heard about lungs, breast, prostate, cervical abdominal and throat cancer. Also 7.5% said that they have heard about lungs, breast, prostate, cervical and throat cancer, 5.8% each of the respondents said that they have heard about lungs, breast, cervical and throat cancer, breast and throat cancer, and breast and cervical cancer, 5.0% of the respondents said that they have heard of lungs and breast cancer and 2.5% said that they have heard about breast, prostate and throat cancer. It is clear that the most common cancer known to all respondents was breast cancer.

Concerning the knowledge of cancer treatment methods, 90.0% of the respondents stated surgery and 10% stated chemotherapy. This shows that majority of the respondents know that surgery is a treatment method for cancer.

The respondents' knowledge of cancer risk elicited interesting response. All (100%) of the respondents said that smoking can pose a risk of cancer. When respondents were asked whether some cancer can be prevented, 89.2% of them said some cancers can be prevented whereas 10.8% said some cancers cannot be prevented. Also when respondents were asked whether overweight poses a risk of cancer, 35.0% of the respondents said yes whereas 19.2% said no. In all, 45.8% of the respondents however had no idea as to whether overweight poses a risk of cancer. This shows that all the respondents are of the view that smoking can pose a risk of cancer. However, not all respondents agree that some cancer can be prevented. Again, the risk overweight poses to cancer was not clear from the views of respondents.

Respondent's responses to causes of real cancer like whether cancer can be transmitted through contact from one person to the other, whether some herbal medicine can cause cancer, whether heavy drinking can increase a person's chances of getting cancer, whether some artificial food additives can cause cancer and whether poor quality diet can cause cancer or not was interesting. Majority (94.2%) of the respondents said cancer cannot be transmitted through contact from one person to the other whereas 5.0% said cancer can be transmitted through contact from one person to the other. 0.8% of the respondents said they had no idea. 32.5% of the respondents said some herbal medicine cause cancer whereas 11.7% of them said some herbal medicine does not cause cancer. Over half (55.8%) of the respondents had no idea whether some herbal medicine cause cancer or not. Also 64.2% of the respondents said heavy drinking can increase one's chances of getting cancer whereas 6.7% of them said heavy drinking cannot increase a person's chances of getting cancer. In addition 29.2% of the respondents have no idea and 70% of the respondents said that some artificial food additives can cause cancer, whereas 11.7% of them said some artificial food additives cannot cause cancer. 18.3% of them had no idea. 53.4% of the respondents said poor quality diet can cause cancer whereas 20.8% said poor quality diet cannot cause cancer. 25.8% of the respondents had no idea whether poor quality diet can cause cancer or not. From the responses, it is clear that majority of the respondents are not well informed on the causes of cancer.

When the respondents were asked which food is likely linked to colon cancer. Majority (83.3%) of the respondents said that processed meat/hotdogs is likely linked to colon cancer, 9.2% said that vegetables is likely linked to colon cancer, and 7.5% said that peanut is likely linked to colon cancer. The majority of the respondents are in agreement that processed meat/hotdogs is likely linked to colon cancer.

In order to examine people's attitudes and perception of cancer, respondents were asked a number of questions, 90.8% of the respondents said they would like to detect cancer early in order to save their lives, 3.3% of them said no and 5.8% had no idea. Majority (75%) of the respondents said all individuals are at risk of getting cancer. Whereas, 19.2% of them said all individuals are not at risk of getting cancer, 5.8% of them had no idea. Also 52.5% of the

respondents said traditional treatment is not best for cancer whereas 5.8% of them said traditional treatment is best for cancer. A sizeable (41.7%) of respondents however had no idea on this issue. Additional, 86.7% of the respondents said cancer is not a punishment for sins and 13.3% said they don't know whether cancer is a punishment for sins or not. Moreover, 78.3% of the respondents said cancer is not very rare and does not affect only those who are unlucky whereas 10% of the respondents said cancer is very rare and affects only those who are unlucky, 11.7% of them had no idea. Finally, 57.5% of the respondents said multiple sexual partners' does not cause cancer whereas 8.3% of the respondents said multiple sexual partners causes cancer. 34.2% had no idea whether multiple sexual partners causes cancer or not. From the responses, not all respondents have the right attitude towards cancer and also, people have wrong perception about cancer.

In conclusion, the study revealed that knowledge is a significant influence on attitudes and practices in non-communicable diseases like cancer. This is because high level of knowledge of cancer translated into a higher compliance with life styles precautionary measures. It is highly recommended that stake holders and policy planners, takes immediate steps to increase efforts at reaching the populace who remain unaware of cancer. These may be achieved through more TV talk shows, documentaries and adverts to create the much needed awareness. Undoubtedly, there is the need for further education to get all people educated and those who are already educated well informed.

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