

Attitude and Rectitude Towards Skin Cancer Among Youths in Makurdi Benue State

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Background: Skin cancers is prevailing and constantly increasing by the day in Nigeria, to add to the worry is the length/duration it takes to detect it and attendant delay in terms of diagnosis. This work is meant to assess the levels of awareness and the influencing factors related to skin cancer knowledge in Nigeria in a broader note. Methods: This prevailing investigation and rudiments was carried out in Benue State North Central Nigeria through the medium of a validated questionnaire, which contained several items – demographics, skin cancer knowledge, source of the knowledge of cancer, valid information, cancer sources, preventive and treatment measures on skin cancer Results: Out of the 560 respondents engaged in the study, 2.1% had never heard of skin cancer, 18.5% had a low performance of skin cancer knowledge, 79.3% had a good score on the knowledge of skin cancer. In the same way, 75.1% of the respondents have good and general knowledge of cancer ranging from heard about it, reliable and credible source of information and can identify those who suffer from it. About 22.5% of the participants do know nothing about it. In the same vein, 45.5% of the participants score high on the true source and cause of cancer, 54% knows nothing about the cause. The participants score 59.5% on the facts about skin cancer leaving 16.2% with little knowledge of the proven causes and 24.3% are completely ignorance on the causes. On the knowledge and the use of the preventive measures, only 21% of the participant know and some time use the preventive measure, 49.4% of the participants do not know the measures and invariably cannot practice same while 29.6% are totally ignorant on the subject of prevention techniques. 57.7% of the participants had a high score on skin cancer treatment knowledge, 18.3% had little or no knowledge of the treatment and 24% know nothing about the treatment methods. Conclusions: Consider the lack of knowledge and the underestimations of skin cancer and its attendance risks in our study area, efforts are highly recommended to strengthened skin cancer surveillance behaviors in Nigeria to prevent its destructive arms on the populace especially the young people.

Introduction

Study shows how skin happen to be the largest organ in human body, nevertheless skin cancers become the uncommon malignancies all over the world today [20], not long ago there has been dramatic increase in the prevalence of skin cancer around the globe, and it accounts for 1 in 3 cancer cases globally [11].

Skin cancer is traceable to uncontrolled growth of different types of cells found normally in skin. The commonest types are said to be Basal Cell Carcinomas (BCC) and Squamous Cell Carcinomas SCC. It is a known fact that these cancers are rarely deadly, they are very common and potentially disfiguring, and they often recur as report could reveal [14]. Majority who are

victims diagnosed with SCCs and BCCs, especially at lower and average ages, are at increased risk of subsequent primary cancers which calls for concern, possibly for genetic reasons [9]. The three major and common types are:

Basal Cell Carcinomas (BCC)

Study showed that BCCs arise from the cells in the bottom, or basal, layer of the epidermis. BCCs has been said to occur on skin that is chronically opened to the sun, such as the face, head, and neck, but they also often time occur on the trunk of human body [9]. On account that it frequently occurs on the face and head, BCC and its treatment can result in noticeable disfigurement. It can be grouped into five different subtypes namely: nodular, ulcerating, pigmented, sclerosing, and superficial [9].

Squamous Cell Carcinomas (SCC)

Another skin cancer type called SCCs arises from squamous cells in the outer layers of epidermis. In the same manner to BCCs, SCCs usually occur in prominent, sun-exposed parts, such as the face, head, the neck SCCs often emanates from actinic Kerasotes, which are rough, scaly patches that occur on sun-exposed areas [16].

Melanomas

Study revealed that melanomas develop through melanocytes, the melanin-producing cells which eventually give some body parts like skin and eye their color [14]. These cancers can begin in the skin (cutaneous melanoma) and less frequently in the eye (ocular melanoma) or mucous membranes. Melanoma can be grouped into several subtypes: nodular and superficial spreading melanomas, which can occur in any location on the body; lentiginomaligna melanoma, which is usually detected on the head, neck, and face; and acral lentiginous melanoma, which can be found on the palms of the hands and soles of the feet, and under nails.

In a great nation like US, skin cancer happen to be one of the commonest diagnosed cancer, still most of such cases are preventable and can be avoided if proper cautions are considered. Every year in the United States, nearly 5 million people are treated for skin cancer, at an estimated cost of \$8.1 billion. Melanoma from studies was said to be the most deadly form of skin cancer, causes nearly 9,000 deaths each year. Despite several attempts and efforts geared towards addressing risk factors, skin cancer rates continue to rise [16].

Study shows that cancer was estimated to be the prevailing causative factor for the death of about 7 million (12% of all deaths) worldwide in the year 2000, only followed by cardiovascular diseases (30% of all deaths), and by infectious and parasitic diseases (19%). It was revealed, Cancer was also estimated to account for almost 6% of the entire global burden of disease in that same year. More than 70% of all cancer deaths occurred in low- and middle-income nations and, although the challenge of developing/dying from it is still relatively higher in the developed regions of the world, the control of communicable diseases as well as the ageing of the population in developing countries, owing to the trouble of cancer worldwide. Clearly researchers have predicted a 30% increase in the number of cancer deaths in developed countries, and more than twice this amount (71%), in developing countries, between 1990 and 2010, due to demographic effects alone [10]. Rising incidence will only add to this burden and an action to avert this is prominent in nations [16].

Skin cancers also has been reported from study to be the most commonly diagnosed of all cancers, are typically viewed as ailments affecting primarily Caucasian populations in powerful nations like that of Australia, New Zealand, Slovenia, and Norway [2]. However, the global skin cancer rates drastically rise over the last three decades [17]. Populations which previously had low records on skin cancer rates may present the biggest challenge for public health officials due to the lack of established preventative and reliance measures.

This cancer is said to be predominant among people with light colored skin whose average time is spent in the sun. It can occur anywhere on the body but is more likely to be found in places opened regularly to sunlight such as the face, arms or hands. One of the obvious warning sign and symptoms of skin cancer can be changes in the size, color or shape of a mole, oozing or bleeding from a mole, a mole that feels itchy, hard, lumpy or swollen and a growth or a sore that will not heal [11].

It is well-established that extensive sun exposure during childhood or adolescence increases the probability of skin cancer in adulthood. In addition, 50–80% of the total amount of ultraviolet radiation (UVR) is accumulated during these periods; this may be due to the sensitivity of young skin to UV radiation [12].

Makurdi is a town that is characterized with wet season, oppressive and overcast, the dry season is humid and partly cloudy,

and it is hot almost all through the year. During the year, the temperature typically ranges from 63°F to 94°F and is rarely below 57°F or above 99°F. The hot season usually prolong for 2.3 months at least, from February 5 to April 15, with an average daily high temperature of about 92°F. Study showed March be the hottest day of the year, with an average high of 94°F and low of 74°F [16]. Assessment of solar UV within six hours (10.00am and 4.00pm) over a three week period in Makurdi revealed that the intensities of UVR getting to the earth varying from 22.8 mW/m² to 170.0 mW/m² with UV indices of 1 and 7 [8].

Some factors as genetic factors for instance being fair-skinned or having a family history of skin cancer, contribute to a person's risk said researchers. The most common types of skin cancer are confirmed link exposure to UV radiation and can be detrimental to human skin. UV exposure is also the most preventable cause of skin cancer as revealed by study. The predominant cause of skin cancer is exposure to solar radiation, in combination with the skin's susceptibility to the damaging effects of sunlight, including lighter complexion and predisposition to burn, blister, or freckle in the sun [13]. UV exposure reduction is strongly advised, with an emphasis on addressing excessive, avoidable, or unnecessary UV exposures (such as prolonged sun exposure without adequate sun protection) and purposeful exposure for the purpose of skin tanning (whether indoors using an artificial UV device or outdoors while sunbathing and any other reason for people hardly consider risk of such exposure in most case on account of ignorance [16].

UV radiation is a type of electromagnetic radiation emitted by the sun and from some man-made lights, with wavelengths longer than X-rays but shorter than visible light [19]. For most people in the United States, the sun is the most common source of exposure to UV radiation. UV radiation from indoor tanning devices is a less common but more easily avoidable source of UV radiation exposure than from the sun. This Call to Action discusses important steps that can be taken to reduce exposure to the most common sources of UV radiation at the population level [16].

Melanocytes are largely stimulated by UV exposure and the end result is always melanin, tan or sunburn are the attendance consequences, both of which indicate overexposure and damage to the skin, skin cells, and DNA within those skin cells [17]. The background biology of skin cancer risk is directly proportional to the damage it can cause to the skin and its genetic material and the subsequent outcome. UV exposures can affect skin cancer risk; complete abstinence from UV rays from the sun is neither realistic nor advisable for a lot of nations especially Americans [17]. Spending time outdoors has a whole lot of positive health advantages, such as increased levels of physical activity and improved mental and psychological health of an individual [2].

It is on record that body exposure to sunlight is a major environmental risk factor for the three classes of effects namely: cutaneous melanoma, basal cell carcinoma (BCC) and squamous cell carcinoma (SCC). The development of SCC is attributed to the long term accumulation of sunny effects while mixed effects of cumulative and intermittent sun damage seem to account for the development of BCC and melanoma respectively [11, 7]. Avoidance as well as minimal exposure to the sun, either through avoidance or skin protection measures, could be a major tool in the war against skin cancer [15]. The centerpiece of skin cancer prevention efforts is to minimize the harmful effects of sun exposure during childhood and adolescence, seeing that the majority of an individual's lifetime sun damage tends to surface within adulthood of an individual. Some of the proven preventative measures in the fight against this age long war include the following: staying out of the sun during the hottest part of the day (10 a.m-4 p. m), wearing sunscreen when exposed to sunlight and avoiding exposure to sun lamps and use of tanning salons. There has been a huge amount of research literature on skin cancer especially in the last 10–15 years. The bases for the obvious prevailing rise in the number of victims are no doubt that this is indirect relation to the increases in prevalence of the disease on a global basis. Australian and American research has led in the field, others a likely to follow suite and again it is probable that this has been due to the increase in rates of skin cancer in those countries lately [11, 7].

Skin cancers are less common in Nigeria than in some other parts of the world but are still a very important cause of morbidity and, to a lesser extent, mortality especially among albinos here. It is estimated that there are 65,258 new cases of skin cancer in Nigeria annually giving a projected annual incidence of 52 in 100,000 [3].

This article is a representation of a classical narrative review on key important headings which are: the knowledge, attitudes, and practices (KAP) related to skin cancers within the population of Benue State. Based on this framework, recommendations of preventative public health strategies to engage the population have been made.

The research is meant to gather raw data to evaluate and ascertain the populace's current knowledge, attitudes, and behaviors regarding risks for developing melanoma and the importance of skin cancer prevention. An additional purpose was to investigate the factors related to the adoption of preventive behaviors. The subsequent benefits will be to support the development of productive strategies for future skin cancer eradication programs by government and private organizations and institutions.

Method

This research was a cross-sectional, survey-based study conducted among 560 youths resident in Makurdi Benue State Capital. Makurdi is the biggest city in Benue State; It is located in the North Central part of the country and has a population of about 292,645. It operates on the WAT time zone [20]. Interview was conducted and distribution of questionnaire to the general population in multiple locations and different districts of the city to guarantee a reasonable representation of the population, taking into account the densely populated northern and southern regions of the town. The questionnaire was developed based on literature and the objectives were to investigate (a) general awareness (b) sources (c) truth (d) preventive measures (e) treatment methods. The questionnaire consisted of two parts. The first part consisted of socio-demographic variables of interest included, marital status, educational level attained, residency and family history of cancer. The second part was about practice towards skin cancer prevention.

Validation of instrument was done at the Benue State University Makurdi and a pilot study was conducted at the main town of Oju Local Government Area of the State. The questionnaires were distributed among residence by simple random sampling technique. Questionnaires were distributed; hundred and forty copies each at North Bank, Wurukum, High Level, and Federal Lowcost Naka Road areas of Makurdi Town.

The inclusion criteria were 18 year-old and above, can speak, read and understand English Language. All participants were given a brief explanation about the purpose of the study and an assurance of confidentiality. Participants were also assured that their participation in the study was voluntary and that they could withdraw at any time during the interview if in doubt. Data obtained were analyzed using SPSS version 2007.

Data Collection

Data were collected on filling a five-minute questionnaire by participants, in a “face to face” way with the respondents, in order to help them fill the questionnaires correctly base on their knowledge of the subject. Investigators were volunteers selected randomly from the four major parts of the city, with average number from students of the Benue State University Makurdi who are from those areas.

The questionnaire consisted of 26 questions with several items: Personal information, skin cancer information, proven true knowledge of skin cancer, prevention and treatment measures. Epidemiological and sociodemographic data of participants included: age, gender, highest level of education, (filled by the investigator); then, participants were asked if they heard about skin cancer and from where (books, internet, TV or been taught) and if they have suffered from the disease or know someone who suffers/suffering from it; then, they completed questions regarding their knowledge about skin cancer (its danger, able to kill, connection with mucous, connection with pre-existing skin injuries, contagiosity and treatment), in addition, skin cancer preventive measures (sunscreen use, shade seeking, and use of sun protective clothing). Respondents used a 3-point response scale (yes, no, I don't know) to indicate their response to the questions.

Statistical Analysis

The results were obtained using a descriptive, univariate and multivariate analysis using the SPSS 2007 software.

In the descriptive analysis, quantitative variables were expressed by means, standard deviation and qualitative variables by percentages. In the univariate analysis, the frequency and cumulative frequency were obtained and charts were generated accordingly.

Results

560 subjects were obtained in this survey; the average age of participants was 25years. The questionnaire was developed for response on the part of literature and the objectives were to investigate in the following order (a) general awareness (b) sources (c) true knowledge (d) preventive measures (e) treatment methods of skin cancer from the populace.

The result is as presented in line with the objectives as follows:

Below is the aggregate table of response on the objectives as extracted from the questionnaire.

Table 1. General knowledge.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	I KNOW	434.0	77.5	77.5	77.5
	I DON'T KNOW	126.0	22.5	18.6	100.0
	Total	560.0	100.0	100.0	

Table 2. Source of the effect.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	252.0	45.8	45.8	45.8
	NO	128.0	23.0	23.0	68.6
	I DONT KNOW	176.0	31.2	31.2	100.0
	Total	560.0	100.0	100.0	

Table 3. True knowledge.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	333.0	59.5	59.5	59.5
	NO	91.0	16.2	16.2	75.7
	I DONT KNOW	136.0	24.3	24.3	100.0
	Total	560.0	100.0	100.0	

Table 4. Prevention.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	118.0	21.0	21.0	64.7
	NO	274.0	49.4	49.4	62.2
	I DONT KNOW	116.0	29.6	29.6	100.0
	Total	560.0	100.0	100.0	

Table 5. Treatment.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	323.0	57.7	57.7	57.7
	NO	102.0	18.3	18.3	75.9
	I DONT KNOW	135.0	24.0	24.0	100.0
	Total	560.0	100.0	100.0	

Figures 1-5 shows the results on a chart as presented on tables 1-5 above.

Figure 1. General knowledge.

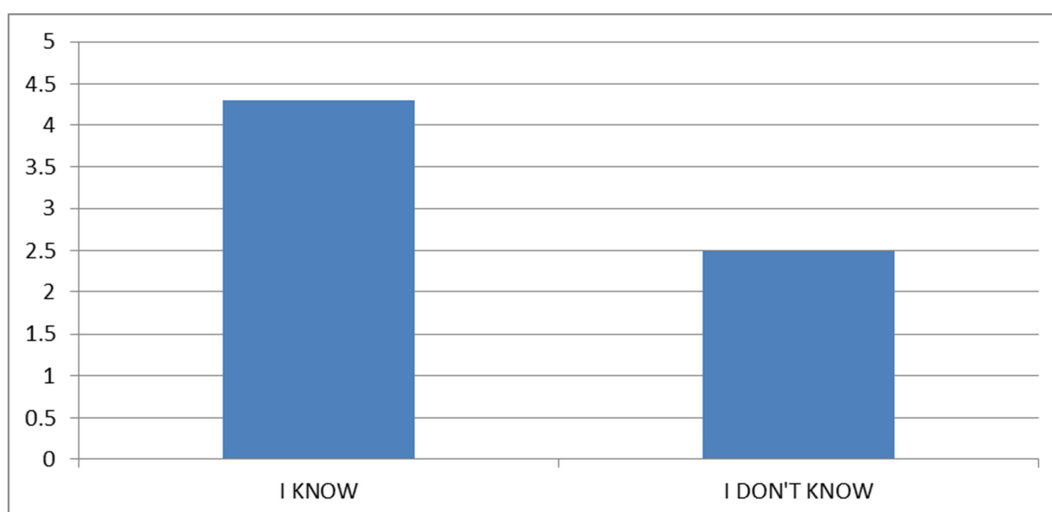


Figure 1. A graph of frequency verses response of participants on general knowledge.

Figure 2. Source of the information.

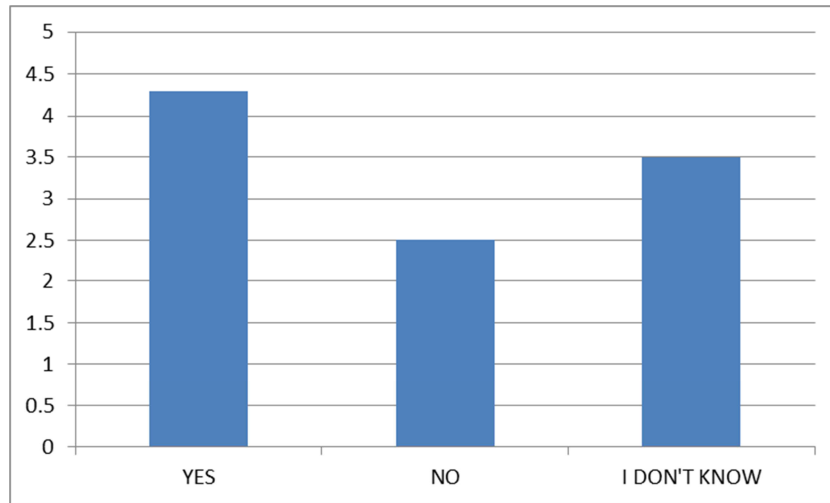


Figure 2. A graph of frequency verses response of participants on source of information.

Figure 3. True knowledge.

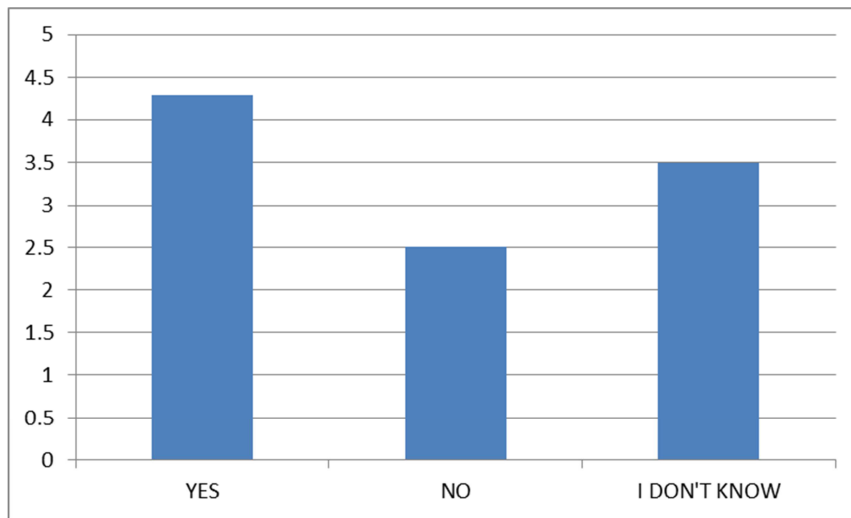


Figure 3. A graph of frequency verses response of participants on prevention measures.

Figure 4. Prevention.

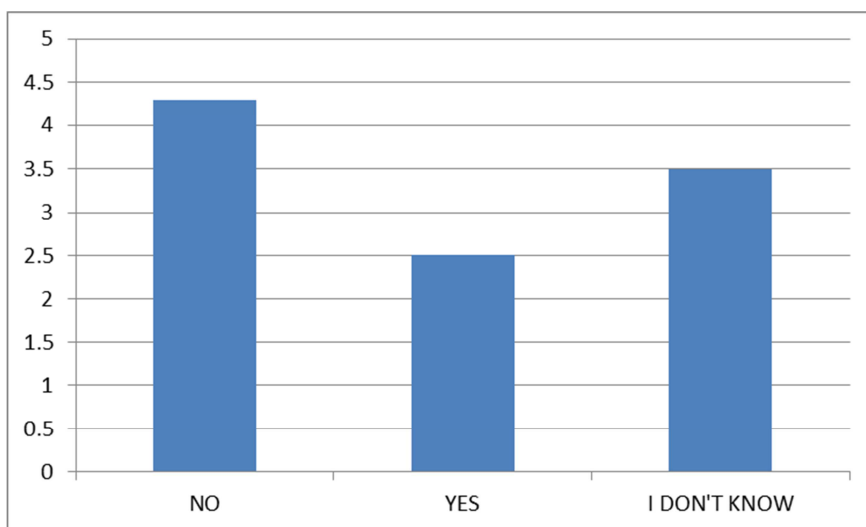


Figure 4. A graph of frequency verses response of participants on prevention measures.

Figure 5. Treatment.

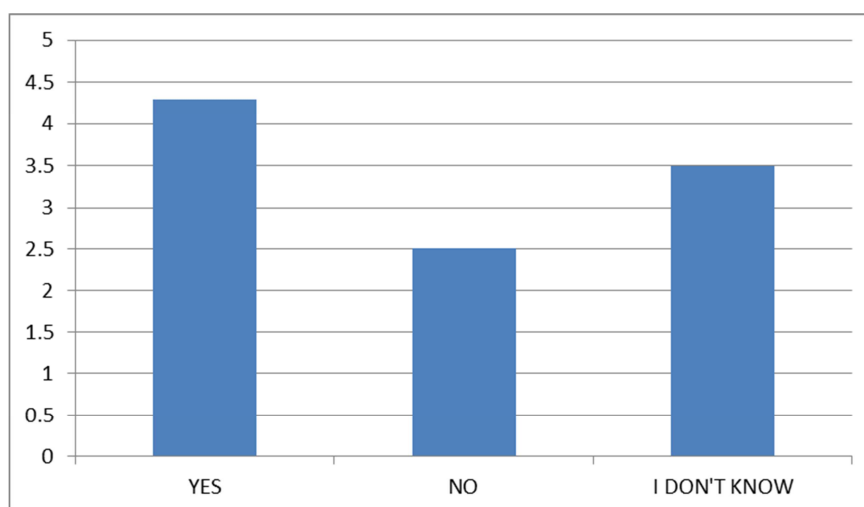


Figure 5. A graph of frequency verses response of participants on prevention measures.

Discussion

The result shows female predominance (68%) and 70% of participants were of the age between 18-35 years,

From the tables 1-5, the following conclusions are drawn. Sources of information about skin cancer varied according to the age and the educational level. Each category of the population had a different source of information.

Young persons with a moderate and high education level used the internet reasonably, been taught and reading while television was the source of information of illiterates and older aged persons respectively. From another perspective, 48.6% of our participants, especially younger people had already heard of this type of cancer from different sources, such as skin cancer patients, dermatologists and particularly the media (TV, internet). One of the most efficient tools is the media tools and may be an interesting way of sensitization that we can use as a strategy of SC prevention among the young people. As an escarp from the outcome of this investigation, each category of the population may be educated using different media tools; for young educated persons the internet and the social media are the most effective way of relaying information effectively and promptly, while TV remains the best way of sensitization for illiterates, low level, average educated and aged persons.

75.1% of the participants have good and general knowledge of cancer ranging from heard about it, reliable and credible source of information and can identify those who suffer from it (table 3). About 22.5% of the participants do know nothing about it.

This report shows that 45.5% of the participants score high on the true source and cause of cancer, 54% knows nothing about the cause which is inappropriate (table 3); consider that prevention can only be initiated when the causes and the sources are ascertained with proper knowledge. This also reveals that the knowledge of the effect is louder than the cause and balancing is required.

The participants score 59.5% on the facts about skin cancer leaving 16.2% with little knowledge of the proven causes and 24.3% are completely ignorance on the causes (table 2). This is quite large consider the age range and the level of education of the participants.

Taking results on the knowledge and the use if the preventive measures, only 21% of the participant know and some time use the preventive measure, 49.4% of the participants do not know the measures and invariably cannot practice same while 29.6% are totally ignorant on the subject of prevention techniques (Table 4). An average Nigerian particularly females walk about under brighten sunny day with sleeveless tops purporting heat weather excuses subjecting their skin to this danger. The use of sun classes for many is for the proud/arrogant and those with eye related problems.

57.7% of the participants had a high score on skin cancer treatment knowledge, 18.3% had little or no knowledge of the treatment and 24% know nothing about the treatment mechanisms (table 5).

Participants believed that skin cancer is risky however they have limited knowledge on the possible treatment methods; this

is far from access the treatment method which is another factor to be considered.

The result expressed that behaviors and attitude of the respondents were influenced by their educational level and general exposure; the more informed and enlightened, the more the participants preferred to stay away from skin cancer patients or they remain indifferent to them more reasonably can one be contagious, and it was analphabets and the persons with a low educational level who can otherwise imagine that they must support these patients even though it could be contagious as erroneously viewed by some ignorance folks. Some people can be indifferent not because they are shielded from the ignorance of the truth but because of misinformation and negligence.

Research reports that skin cancer is the most common malignancy with a proof of how this dreaded sickness increases dramatically, especially Melanoma which has a faster growing incidence and has resulted into a higher mortality rate than that of any other malignancy in recent past till now [5]. The underlying and the obvious reasons of risk factors could be such as sun exposure; chronic and repeated in both BCC and SCC, while intense sun exposure and a history of sunburn was linked to melanoma as reported from several studies. In contrast and peculiarity with other cancer types, SC remedy costs are currently low the reason being that, it can be primarily treated efficiently in an office-based setting as mentioned by researchers. NMSC care cost stands in fifth place after prostate, lung, colon, and breast carcinomas. But, due to its considerable frequency, its final cost would be huge and depends on two independent and decisive factors: care settings and treatment modalities (Kelati et al, 2017).

Conclusion

Following the results of this investigation reflected from the various tables (tables 1-5) and the figurers, safe to infer that it's crucial to seek ways to change/correct the behavior, attitude and notion of people on the erroneous view regarding this special type of cancer in an attempt to prevent and to establish a skin cancer surveillance and to facilitate its early detection and to invoke treatment measures. Contrary to the idea situation, guidelines regarding the skin cancer screening are inconsistent and depend on the economic level of countries and natural factors like sunshine, climate, altitude and other factors like prototype and customs. However, several prominent national and international organizations recommended and emphasized sun-protective behaviors, education of health professionals, including nurses, in addition to improving strategies of SC and melanoma screening as a way out [1]. I wish it happen in Nigeria that reflections from investigation like this lead the health system into considering establishing a general approach to deal with misinformation and ignorance on critical health matters, using different ways of communication like the internet; the TV and the programs of teaching health maintenance, the school programs for children; the sun protection guidelines and the skin cancer screening programs not only for dermatologists, but for all the health care professionals and possibly the general populace.

Limitations

Clearly this study is not without limitations, looking out from the choice of participants with the criteria for participation,; all the sections of the population were represented in the designed study sample, however the percentage of these sections was not equal. Although respondents were chosen randomly and we tried to have a representative sample of all categories of the population for optimal and higher efficient outcome, 95% of our participants were young (between 18 and 40 years old) and within undergraduate study in 70% of cases to capture the target audience as encrypted in the subject of the study.

Been a cross-sectional study, there are limitations in the construct of this narrative review. Some of the studies are susceptible to measurement biases due to self-reported data collection methods which is the most suitable for the environment. In the light of same, the data collected via questionnaires are liable to the recall bias from respondents. It is worthy of note that because it was populace self-report, behavior may be an over, under or actual estimation of the true behavior.

However, it is practically impossible to observe actual behavior over extended periods in all outdoor contexts, it is therefore difficult to accurately determine whether this is so.

Lastly, recognition is needed when making generalizations of findings to the entire Makurdi population since this review included only six major locations in the city.

Conflicts of Interest

The authors clearly attest no conflicts of interest.

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