Cholesterol Build-Up Awareness and Knowledge Among Sedentary Workers in South East Nigeria

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Abstract- There is proliferation of cholesterol build-up wellness information online due to the controversies and debates about it causes and effects which have also captured journalistic attention. This study investigates the extent sedentary workers in South East Nigeria are aware and exposed to cholesterol build-up information, their knowledge and sources of awareness and exposure. The study adopts the Theory of Selective Exposure. The study employed survey method in which Questionnaire was used to gather data. The population of the study is bankers with all the licensed commercial banks operating in South East Nigeria. The sample size is 500 respondents selected using simple random sampling approach. Descriptive statistics were employed for data analysis. Findings revealed that there is high awareness and exposure to cholesterol build-up wellness information. The study established poor knowledge of causes of cholesterol build-up, major sources of body cholesterol and cholesterol build-up controversies while knowledge of cholesterol build-up effects and control were average. Findings also revealed that internet/social media is their source of exposure and awareness to cholesterol build-up information. The study concludes that exposure to cholesterol build-up wellness information online has not provided the bankers with adequate knowledge. The study therefore recommends more awareness and enlightenment campaigns specifically on cholesterol build-up wellness.

Index Terms- Cholesterol Build-up, Awareness, Exposure, Knowledge and Sedentary Workers

I. Introduction

In recent time, controversies as to the causes and effects of cholesterol build-up have become rife. Of great concern however is the proliferation of this information since the emergence of social media. These concerns could be understood within the context of the ready availability of contrasting materials on cholesterol build-up wellness online. This is because, knowledge and awareness about cholesterol build-up usually emanate from scientific researches on cholesterol which find their ways into various channels of information as news stories, jingles, advertisements, studio discussions and even as themes for international health days. Buckley et al (2015) remark that cholesterol controversies have captured widespread journalistic attention from news and documentaries on television, weekly articles in newspapers and features within the popular press on science, ergonomics and health.

For instance, the US Dietary Guidelines Advisory Committee (DGAC) 2015 reversal of its over four decades caution about eating cholesterol-laden food which was featured in Washington Post in the same year is still being circulated on various social media platforms in Nigeria. What many may not however understand is that the committee, according to Washington Post (2015) did not reverse warnings about high levels of "bad" cholesterol in the blood, which have been linked to heart disease. This is because heredity and various metabolic conditions and not diets alone, influence an individual's level of cholesterol (Lawes, Hoorn, Law & Rodgers, 2004).

The concern of this work however, is on the exposure to and knowledge of this cholesterol build-up wellness information, including the debates and controversies the topic continues to generate among sedentary workers who spend long hours performing computer-based tasks. The focus on Sedentary workers as the basis for this study is because they are part of the major target audiences for information on cholesterol build-up wellness, since according to Conolly (2016), sedentary lifestyle, especially a prolonged one comes with a whole host of health ailments and some of the most common and talked about are cardiovascular disease, high cholesterol and blood pressure. The Advanced Cardiovascular Life Support (2019) also identified sedentary lifestyle as one of the modifiable risk factors that determine who is at the highest risk of developing high cholesterol and cardiovascular disease.

Looking at this situation, it therefore becomes necessary to examine the extent sedentary workers are exposed to cholesterol build-up wellness information, their sources of wellness information and their level of knowledge about cholesterol build-up wellness. The particular sedentary workers being referred to in this study are bankers. Bankers were chosen for this study because the banking sector according to Hendriksen et al., (2013) is one of the major occupational domains for sedentary lifestyle in the contemporary times and offers an excellent platform to study cholesterol build-up awareness and knowledge.

Statement of Research Problem

The scientific research communities are divided over the causes and effects of cholesterol build-up and have continued to come up with views and findings that most times counteract, reverse or contradict the earlier cholesterol build-up narratives. This has resulted in proliferation of contrasting cholesterol build-up wellness information on social media in recent time. This becomes the case since such scientific research findings form the

basis for health communication campaigns. However, in the midst of all these debates and controversies over causes and effects of cholesterol build-up globally, it is not yet well established in the literature the level of exposure to cholesterol build-up wellness information and knowledge about cholesterol build-up among sedentary workers in Nigeria who are part of the main target audiences for such wellness information. This research therefore interrogated the extent of sedentary workers' exposure to cholesterol build-up wellness information, their level of knowledge and source of awareness.

Objectives of the Study

Within the context of the broad objective, the researchers aim to achieve the following specific objectives:

i. To find out the extent of exposure and awareness of cholesterol build-up wellness information among bankers in South East Nigeria
ii. To find out the South East bankers' sources of awareness and form of exposure to cholesterol build-up information
iii. To ascertain the extent of knowledge about cholesterol build-up among bankers in South East Nigeria

II. REVIEW OF LITERATURE

Cholesterol Build-up Awareness and Knowledge

In the present study, awareness can be said to mean sedentary workers' consciousness about cholesterol build-up. This consciousness arises as a result of their exposure and attention to cholesterol messages in the mass media, the internet, books and consultations with health and medical professionals etc. This is because according to Neubig (2013), high cholesterol does not produce symptoms, so most people are unaware if their cholesterol numbers are high, unless they are screened for heart disease risk through a blood test called a "lipoprotein profile" to measure total cholesterol, LDL (bad) cholesterol, HDL (good) cholesterol, and triglycerides. Cholesterol build-up awareness therefore entails consciousness of one's body cholesterol level which translates to making healthy food choices and engaging in healthy behaviours.

Cholesterol build-up awareness usually stems from scientific researches on cholesterol which find their ways into various channels of information as news stories, jingles, advertisements, studio discussions and even as themes for international health days. This explains why Neubig (2013) remarks that scientific research leads to the identification of risk factors for disease and is the basis for messages in health communication campaigns. However, there is limited literature on cholesterol build-up awareness and there are also few campaigns only about cholesterol. Most campaigns related to cholesterol focus on diet and combination of other chronic disease (Neubig, 2013). An example is the 'California 5 a Day for Better Health!' Campaign in the United State, which promoted increased fruit and vegetable consumption (Forester & Hudes, 1994 cited in Neubig, 2013).

Others include 2010 Eat for Goal! campaign of the World Heart Federation in partnership with UEFA and Go Red For Women campaign which was World Heart Federation and American Heart Association's response to the alarming reality that most people are unaware that cardiovascular disease (CVD) is the number one killer of women worldwide (World Heart Federation, 2010).

Some of the few previous awareness campaigns focusing only on cholesterol include "Know Your Cholesterol" Campaign in Pawtucket, Rhode Island (Lefbvre, 1986 cited in Neubig, 2013). This was a two-month cholesterol education campaign launched to encourage citizens to "know their cholesterol" levels by attending screening, counselling, and referral events. These events featured dietary fat and cholesterol assessments, finger stick procedures, and dietary counselling by trained volunteers (Neubig, 2013). Similar cholesterol related awareness campaigns are also conducted in Nigeria by healthcare professionals and manufacturers of cholesterol containing products in hospitals, schools, workplaces and marketplaces especially during health seminars, workshops and international health days. For instance, the Nigerian Heart Foundation organizes a health walk and a road show with music and dancers offering free health screenings for staff of the Nigerian Union of Road Transport Workers (NURTW) and market men and women (World Heart Federation, 2010).

Although cholesterol occasionally appears in mass media news and programmes, awareness and knowledge about cholesterol buildup seem to be created largely through products' advertisements and disease awareness advertisements. This is because manufacturers of products that contain cholesterol such as vegetable oils are mandated to specify cholesterol compositions of their products (see NAFDAC's Fats and Oils Regulations, 2005; Codex Guidelines, 1993). As a result, there have been rampant use of the slogans 'cholesterol free', 'low cholesterol', 'No cholesterol', 'heart friendly', and 'heart healthy' in products' labels and advertisements like vegetable oils and dairy products. Okpuzor et al., (2009) affirm that due to increasing awareness on health implications of high cholesterol in our diets, most people now prefer buying cholesterol free vegetable oils. Similarly Cinnamon (2009) adds that heart healthy food products aimed at ameliorating high cholesterol have exploded in popularity in recent years and include myriad of products known as "functional foods".

Disease Awareness Advertising (DAA) on the other hand, occurs when pharmaceutical companies or other organizations (including the government and non-profit organizations) promote diseases or conditions, rather than named treatments (ANZTPA, 2005). Although this kind of advertisements have been criticized for providing unbalanced information or exaggerating the prevalence or severity of a condition which may cause consumer anxiety (Mintzes, 2006; Hall and Jones, 2007; Hall, 2008), it is still widely used in creating awareness about cholesterol buildup in the western countries like the US, Canada, New Zealand and Australia. For instance in 2008 Pfizer in conjunction with the Australian Atherosclerosis Society, through its Familial Hypercholesterolaemia Sub-Committee, which was established to help people with inherited cholesterol disorders launched a National Cholesterol Awareness Campaign, including television and newspaper advertisements and a website (Hall, 2008).

Furthermore, cholesterol build-up awareness and knowledge have been influenced by the debate and controversy the topic has generated over the years. This is because the story of cholesterol, according to Gabriano (2011) has continued to be a controversial component of modern medical history. The scientific literature on cholesterol build-up or high cholesterol is often

saturated with findings that most times contradict, counteract, dispute or reverse the already existing notions and narratives about cholesterol. A situation that leads to what Hall (2008) refers to as high levels of confusion in cholesterol awareness campaigns. For instance, Colpo (2005) in his work, 'LDL Cholesterol: "Bad Cholesterol" or 'Bad Science' argues that the concept that low density lipoprotein (LDL) is "bad cholesterol" is a simplistic and scientifically untenable hypothesis, being aggressively promoted for reasons other than public health. He further says;

When confronted with nonsupportive evidence, the anticholesterol mainstream typically engages a two-pronged strategy. First, it simply ignores contradictory evidence. Second, it simultaneously seeks out supportive evidence, no matter how flimsy, and then embarks on an aggressive propaganda campaign to educate as many people as possible about it. The end result is that the public receives a distorted picture of the existing evidence (Coplo, 2005: 86).

These outcomes according to Buckley et al., (2015) have captured widespread journalistic attention from news and documentaries on television, weekly articles in newspapers, and features within the popular press on science, ergonomics and health. For instance, in 2015 Washington Post reported on the America's Dietary Advisory Committee recommendation that cholesterol is no longer considered a nutrient of concern for overconsumption thus:

The nation's top nutrition advisory panel has decided to drop its caution about eating cholesterol-laden food, a move that could undo almost 40 years of government warnings about its consumption. The group's finding that cholesterol in the diet need no longer be considered a "nutrient of concern" stands in contrast to the committee's findings five years ago, the last time it convened. During those proceedings, as in previous years, the panel deemed the issue of excess cholesterol in the American diet a public health concern (Washington Post, 2015).

The paper further reports that; "The finding follows an evolution of thinking among many nutritionists who now believe that, for healthy adults, eating foods high in cholesterol may not significantly affect the level of cholesterol in the blood or increase the risk of heart disease" (Washington Post, 2015).

Also, in 2013, a two part documentary on ABC's popular science show, 'Catalyst' titled 'The Heart of the Matter' caused a storm of outrage from medical experts (ABC Media Watch, 2013).

In its account of the documentary which focused on cholesterol, the Media Watch wrote:

In its recent two-part documentary, The Heart of the Matter, which pulled in a huge audience of almost 1.5 million people per episode, reporter Maryanne Demasi suggested that high cholesterol does NOT cause heart disease and most people are wasting their time taking cholesterol-reducing drugs called statins. She also suggested we've been conned by pharmaceutical companies so they can make billions of dollars in profits (ABC Media Watch, 2013).

These are just few instances of how confusing and controversial cholesterol build-up as a bodily occurrence has become in both the scientific research community and in the media too. Washington Post's Peter Worisky laments over the situation thus, "after more than a century of scientific inquiry (on cholesterol), yet even today scientists are divided" (Washington Post, 2015).

These disagreements, debates and controversies within the scientific research community affect cholesterol build-up awareness efforts as the public receive barrage of contradictory cholesterol health information from the media. This affects their level of awareness, knowledge and attitude toward cholesterol. The World Health Organization (1993) warns that conditions promoting unhealthy lifestyle practices by individuals include lack of adequate health knowledge and acquisition of misinformation about health matters.

Empirical Review

Studies have been conducted on Knowledge, Awareness and Attitude to cholesterol related health risks such as CVDs but not much has been done on wellness information and cholesterol build-up awareness. Also most of these studies come from fields other than health communication like Medical/Health Sciences, Nutrition science, Health and Physical Education.

For instance, Anyasor, Adetunji, Ibrahim, and Adekunle (2015) assessed the plasma cholesterol level and consumer awareness of recommended dietary cholesterol allowance in an academic environment by randomly distributing a total of 100 structured questionnaires within Babcock University community, Ilishan Remo, Ogun State, Nigeria. Out of Ninety seven (97) completed questionnaires, the results showed that 53(54.6%), 75(77.3%) and 74(76.3%) of the females, non-vegetarians and respondents in sciences, respectively had previous knowledge of the term "dietary cholesterol". Females 34(35.1%), non-vegetarians 48(49.5%) and respondents in sciences 50(51.5%), respectively were aware of the negative effect of excess dietary cholesterol consumption. In addition, 35(36.1%), 64(66%) and 40(41.2%) of females, non- vegetarians and respondents in sciences consumed poultry eggs at least once a week. Males 35(36.1%), females 35(36.1%), non-vegetarians 54(55.7%) and respondents in sciences 61(62.9%) had never checked their blood cholesterol level. Males 31(32%), non-vegetarian 47(48.5%) and respondents in sciences 40(42.2%) were not aware of the recommended dietary cholesterol allowance and they ate fried foods and confectionaries sometimes. Thus, the investigation indicated an inadequate level of awareness and practice of the recommended dietary cholesterol allowance among the educated.

Neubig (2013) study is also significant and equally related to this current study but like Anyasor, Adetunji, Ibrahim, and Adekunle (2015) study above, it did not look into the respondents' level of exposure to cholesterol wellness information and their sources of awareness and exposure. The study sought to know (1) the familiarity level about preventive cholesterol screening among men and women 25 to 44 years of age? (2) What high cholesterol mean to this group of men and women? (3) Do men and women within this age group know the factors that cause high cholesterol? (4) Their knowledge level about cholesterol levels and prevention behaviors? (5) The risks, barriers and advantages that this group associates with preventive cholesterol screenings? Using in-depth interviews and focus groups, study participants were recruited from local churches and from various departments within the University of Florida. Analysis of the transcribed discourse revealed four emergent themes: reasonable knowledge of cholesterol, factors influencing cholesterol, no communication

with medical providers after cholesterol screening, and screening comfort. While literature indicated that less than 50% of men and women 25 to 44 8 years of age had been screened for LDL cholesterol, all but one participant in the study had been screened. However, there was confusion about when the screenings should be completed, the study concluded.

To assess the awareness and prevalence of risk factors of coronary heart disease in Sokoto, Nigeria, Awosan, Ibrahim, Sabir and Ejimodu (2013), carried out a comparative cross sectional study among 110 bankers and 110 secondary school teachers selected through multistage sampling technique. Anthropometric measurements, blood pressure measurement, and estimation of fasting blood sugar and cholesterol were done for the participants, together with questionnaire administration. Up to 50% awareness was reported in only 4 of 7 and 1 of 7 CHD risk factors among bankers and teachers. Prevalence of CHD risk factors was high in both groups as follows; hypertension (teachers 33.3%, bankers 22.9%), diabetes mellitus (teachers 9.5%, bankers 8.5%), obesity (teachers 30.5%, bankers 20%), hypercholesterolemia (teachers 37.1%, bankers 41.9%), sedentary lifestyle (teachers 5.7%, bankers 33.3%) and smoking (teachers 4.8%, bankers 7.6%). The study demonstrated poor awareness and high prevalence of CHD risk factors among bankers and teachers in Sokoto. The authors suggested public health education and promotion of healthy lifestyles to reduce this burden. Although Awosan, Ibrahim, Sabir and Ejimodu (2013) study above focused on coronary heart disease of which high cholesterol is only but a risk factor, it is still relevant to this study since it measured the awareness of these risk factors (cholesterol inclusive) among bankers and secondary school teachers.

A similar study was conducted by Oladapo, Salako, Sadiq, Soyinka, and Falase (2013) in Egbeda local government area of Oyo State, Nigeria. It was a population based cross-sectional survey in which structured questionnaire was used to interview 2000 subjects in order to assess knowledge of various aspects of modifiable CV risk factors. The results of the study showed that the commonest source of medical information was the family/friend/opinion leaders of trusted groups in 1198(59.9%), the media (including radio, public enlightenment programmes, and newspapers) in 492(24.6%), and the doctor/nurse/health worker in 183(9.1%) of the respondents. The survey further indicated that overall knowledge of CVD and its risk factors was poor. About 56% of the respondents could not identify a single risk factor. Of those who were able to, only a few could correctly identify the relationship between CV risk factors and CVD with some misconceptions. They concluded that early detection and preventive practices were significantly lacking due to these gaps in Knowledge and that there is an urgent need to design and implement culturally appropriate public awareness, health educational and health promotional programmes about CV risk factors and CVD for this community which can be adapted for other rural population in the country.

To ascertain the knowledge and attitude of members of the Nigerian Armed forces to risk factors of cardiovascular disease, Mohammed (2012) carried out a cross-sectional study among 82 members of the Nigerian armed forces between the ages of 30 to 60 years. Each eligible and willing participant was administered a CVD risk factor knowledge and attitude assessment questionnaire. The outcome of the study showed that 75.6% of the respondents were enlightened about CVDs. Smoking was readily identified by 70.6% as a risk factor, 87% identified stress as a risk factor while 41.6% of respondents identified obesity. Sedentary lifestyle and poor dietary intake use were least identified with only 16.6% and 6.4% of respondents respectively identifying them. 93.9% engaged in exercise (mostly running), 52.4% take vegetables and fruits on a regular basis, 34.5% checked their body weights regularly and only 5% of all the respondents visited the hospital or clinic for routine medical check-up. The study indicated that majority of the study participants had an impressive knowledge of CVD risk factors. However, their attitude towards CVD risk factors is poor. 31.7% and 34.2% of the respondents reported their major source of enlightenment was television and television/radio respectively.

Also, a cross-sectional survey of 206 academic and non-academic staff of Ladoke Akintola University of Technology, Ogbomoso, Nigeria using the Heart Disease Fact Questionnaire was carried out by Akintunde, Akintunde and Opadijo (2012). The study showed that majority, 101 (49.0%) had poor knowledge while 64 (31.2%) had fair knowledge of heart disease risk factors. There was no significant difference between prevalence of CV risk factors between those with good or fair or low level of knowledge. Most participants did not have a good level of knowledge about risk factors, prevention, treatment and association with diabetes as it relates to heart diseases. They concluded that knowledge of heart disease risk factors is low among University workers in Nigeria. They recommended that effective education on heart disease risk factors and appropriate preventive strategies are indeed important to reduce cardiovascular disease burden in Nigerian University communities.

Another cholesterol build-up related study was conducted by Obasuyi and Agwubike (2012). They assessed bankers' awareness and knowledge of using physical activities to promote cardiovascular wellness. A total of 139 subjects were selected for the study in Benin-City, Edo state through a simple random sampling technique and administered a pre-tested survey questionnaire. The study indicated that majority of bank workers 123 (88.5%) were aware of the benefits of physical activities in promoting cardiovascular wellness while 16 (11.5%) were not. However, the overall proportions of those with adequate knowledge of the benefits of physical activities in promoting cardiovascular wellness is (15.8%), inadequate knowledge (40.3%) and poor knowledge (43.9%).

Uchenna, Ambakederemo and Jesuorobo (2012) studied two hundred and thirty-six patients attending a medical outpatient clinic in southern Nigeria through random selection and administered a structured questionnaire on them to assess their knowledge of heart disease and its prevention. They found that one hundred and seventy-eight (75.4%) respondents did not know the symptoms of heart disease while 215(91.1%) had never been told about cardiovascular disease prevention by their doctors. They also discovered that a significant number (82%) had checked their blood pressure in the past 18 months but very few had checked their serum lipid levels (14.4%) and less than 50% of respondents engaged in regular exercise. There was no significant difference between level of education of respondents and awareness of heart disease or education on heart disease prevention and also no significant gender difference in the awareness of heart disease prevention. They concluded that awareness of heart disease and its

prevention among patients is still very poor and they need to be educated on the disease and lifestyle modification so that the resulting adverse consequences are averted.

Using a cross-sectional, descriptive and correlational survey design, Gautam (2012) sought to primarily determine the overall knowledge and health beliefs about CVD among selected undergraduate university students and find out the risk of developing CVD in this population. Secondarily, the study assessed the relationship between knowledge, health beliefs, and personal risks while the tertiary purpose of the study was to determine the factors that predict the relationship between demographic variables and cardiovascular risk factors among these students. The study found that overall knowledge about cardiovascular disease was low among these university students. Individual health beliefs such as perceived susceptibility, severity, and barriers regarding CVD were low; however perceived benefit about CVD was found high.

A similar study was carried out by Butterworth (2009). The study assessed knowledge of mosquito-borne disease, as well as perceptions and practices of mosquito prevention in southwest Virginia by administering survey questionnaire. Five demographic and socioeconomic variables (gender, age, income, education level and length of time one has lived in the county) were used as predictor variables. Gender, age, and length of residence time in the county were found to be statistically significant predictors of specific health-related behaviors. Knowledge of mosquito-borne diseases within the area was generally low, with only one individual correctly identifying La Crosse encephalitis as a threat in the region. Higher numbers (6%) were aware of West Nile virus, while 4% reported malaria in the region, demonstrating a disconnect between actual and perceived risk.

2.3 Theoretical framework

This study was anchored on Theory of Selective Exposure which is a theory of psychology often used in media and communication studies. The theory is credited to Joseph Klapper in 1960 and refers to individuals' tendency to favour information which reinforces their pre-existing views while avoiding contradictory information (Hart et al., 2009). It has its roots from Leon Festinger's cognitive dissonance theory, which asserts that when individuals are confronted with contrasting ideas, certain mental defence mechanisms are activated to produce harmony between new ideas and pre-existing beliefs, which results in cognitive equilibrium (Beauchamp, 2005). The initial notion of selective exposure was that people tend to select specific aspects of exposed information which they incorporate into their mindset based on their perspectives, beliefs, attitudes and decisions (Sullivan, 2009).

In its earliest perspective, Klapper (1960) suggests that individuals are gravitated towards media messages that bolstered previously held convictions that were set by peer groups, societal influences, and family structures and that the accession of these messages over time did not change when presented with more recent media influence. Klapper (1960) further notes that given the abundance of content within the mass media, audiences were selective to the types of programming that they consumed. He suggests that adults would patronize media that was appropriate for their demographics and children would eschew media that was boring to them.

Selective exposure has however been criticized for positing that individuals will prefer information that favours their positions than those that are contrary to their views based on personal characteristics and psychological factors. Rozin and Rozyman (2001) opine that negative information tends to be more powerful, efficacious, and influential than positive information. The theory has equally been critiqued for largely focusing on individual characteristics and psychological motivations as determinants of selective exposure, little is known about which content and context features of media messages make certain messages chosen more frequently than others, regardless of individual differences (Kim, Forquer, Rusko, Hornik & Cappella, 2016). Also, while early research investigated the role of confirmation-seeking motivation in selective exposure to media messages, recent studies have suggested that an explicit identification of information sources in persuasive messages has a significant impact on attitude change (O'Kefee, 1998).

In line with this therefore, bankers as media consumers have choices to select medium and media contents or programmes to satisfy their health information needs and even when they choose to expose themselves to particular health information, they may selectively decide on the aspect of the exposed health information they will retain. They are also likely to select wellness information that are in conformity with their already existing ideas, knowledge, beliefs, attitudes or dispositions toward the health issue being highlighted like cholesterol and will avoid information on wellness (like cholesterol) that goes against their personal idiosyncrasies.

Research Method

This study adopted quantitative approach and a survey research design. Secondary data were gathered from internet sources and conventional books while primary data were generated through a survey questionnaire administered to 500 bankers. The survey method was adopted because of the respondents' nature of work and their work environment as well as its ability to gather a large amount of information from the respondents within a short period of time with relative low cost and few research personnel (Ackroyd & Hughes, 1981).

Population

The population of the study consists of all the staff of licensed commercial banks operating in South East Nigeria. However, the physical setting of the study was made up of bankers with the 14 licensed Nigeria commercial banks operating in Enugu state, the former capital of the Eastern region and where most of the banks regional offices are located. This purposive decision was based on the fact that the banks' settings, standard and scenario in Enugu are the same with the other four states of the South East (Abia, Anambra, Ebonyi and Imo) as well as across the thirty-six states of Nigeria. The researcher could not get the exact number of bankers in the South-East Nigeria.

Sampling Frame

The sampling frame consisted of all the 14 licensed commercial banks operating in Enugu state. To delineate the survey population, the commercial banks were stratified into two clusters; one cluster for banks referred to as old generation banks

and another cluster for those called the new generation banks. From the population, two banks each were purposively selected from the two clusters based on staff strength and number of branches operated in the state. These were Access Bank, Firstbank, United Bank for Africa and Zenith Bank

Table 1: Staff Distribution of the Four Selected Banks in Enugu State

S/N	Bank	Number Of Staff
1	Access Bank	213
2	First Bank	243
3	United Bank for Africa	187
4	Zenith Bank	168
	Total	**811**

Source: HR & Admin departments of the four selected banks in Enugu state

The sample size was arrived at using the formular for determining sample sizes recommended in Wimmer and Dominick (2011) at 95% confidence level, standard deviation of 5 and error margin of +/- 5%, where 95% confidence level = 1.96 Z-Score

Necessary Sample Size = $\frac{(\text{Z-Score})^2 \text{ X Standard Deviation X (1-Standard Deviation)}^2}{\text{Margin of Error}}$

$\frac{(1.96)^2 \text{ X } 0.5(0.5)}{(0.05)^2}$

$\frac{(3.8416 \text{ X } .25)}{0.0025}$

$\frac{0.9604}{0.0025} = 384.16$

$= 384$

Based on this computation, a sample size of 384 could do for this study as the most conservative for a 5% error tolerance, however a sample size of 500 was decided upon as the most conservative for a 5percent tolerance level for this study. This purposive decision was based on Stacks and Hocking (1999) suggestion that the larger the sample, the more representative of the population the sample will be and smaller your error will be. Because the population of bankers in the studied banks differs in sizes, sampling fraction suggested by Ajai and Amuche (2015) was used to proportionally share the sample size among the selected banks:

$\frac{\text{Total sample size}}{\text{Total number of population frame}} \text{ x Population of each bank}$

Therefore

For Access Bank bankers = $\frac{500}{811}$ x 213 = 131.3

= 131

For Firstbank bankers = $\frac{500}{811}$ x 243 = 149.8

= 150

For UBA bankers = $\frac{500}{811}$ x 187 = 115.2

=115

For Zenith Bank bankers = $\frac{500}{811}$ x 168 = 103.57

= 104

Table 2: Showing Sample Allocation to each Bank

Bank	Population	Sample Size
Access Bank Plc	213	131
Firstbank Plc	243	150
United Bank for Africa Plc	187	115
Zenith Bank Plc	168	104
Total	**811**	**500**

Probability sampling technique was used in final selection of the respondents. Moreover, simple random sampling, an arm of the probability sampling technique was used because it afforded every element in the population equal chance of being selected.

Instrument

A pre-coded 18-items questionnaire containing a mixture of open-ended and multiple choice questions was used as the data collection instrument. These items addressed variables directly related to research questions that were developed for this study.

Method of Data Analysis

Descriptive statistics were used in analyzing data that were generated through the survey research method.

III. RESULT AND DISCUSSIONS

Respondents

A total of 500 copies of the questionnaire were distributed and completed by the respondents, representing a return rate of 100% (37.6% male and 62.4% female). However, among the returned copies of the questionnaire some questions were not answered by the respondents. This could account for variations in the frequencies. Bankers within the age brackets of 26 to 33 constitute the highest number of the respondents at 38% while 54 and above constitute the least at 1.2%. Most of the respondents have a minimum of a diploma and maximum of bachelor's degree as their educational qualifications. Also, greater numbers of the studied population work in the cashier/teller section (48.7%) followed by customer care section (39.7%).

Awareness and Exposure to Cholesterol Build-up Wellness Information

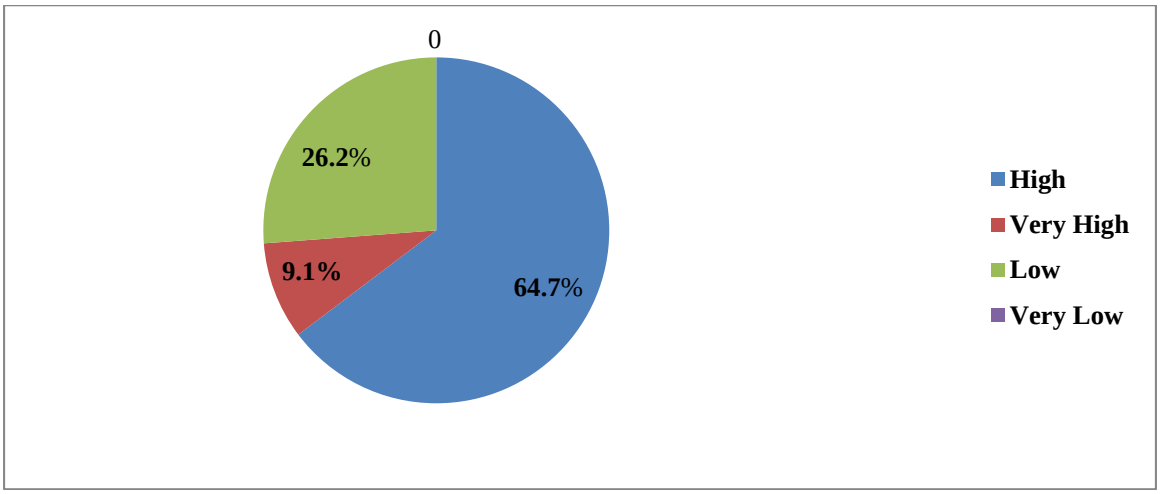
Table 3: Respondents' Cholesterol Build-up Awareness

Responses	Frequency	Percentage
Yes	369	73.8%
No	131	26.2%
Total	**500**	**100**

Source: Survey 2019

The data in Table three above show that 73.8 percent of the respondents have come across cholesterol build-up wellness information, 26.2 percent of them were not aware of cholesterol build-up. The data in the above table indicate that despite the recent proliferation of cholesterol build-up messages especially on social media, some bankers still have not come across cholesterol build-up wellness information.

Fig 1: Respondents' level of Awareness



The data in figure one above show that 64.7 percent of the respondents have high awareness of cholesterol build-up, 9.1 percent of them have a very high awareness of cholesterol build-up while 26.2 percent said their cholesterol build-up awareness is low. The data in the above table indicate that the greater percentage (73.8 percent) of the bankers is very much aware of cholesterol build-up.

Table 4: Respondents' Exposure to Cholesterol build-up messages

Responses	Frequency	Percentage
Yes	369	73.8%
No	131	26.2%
Total	**500**	**100**

Source: Survey 2019

Table Four above shows that 73.8 percent of the respondents exposed to cholesterol build-up messages whereas 26.2 percent said, they are not exposed to cholesterol build-up wellness messages; an indication that there is a preponderance of those who have an idea of what cholesterol build-up is all about over those who do not.

Fig 2: Respondents' Frequency of Exposure

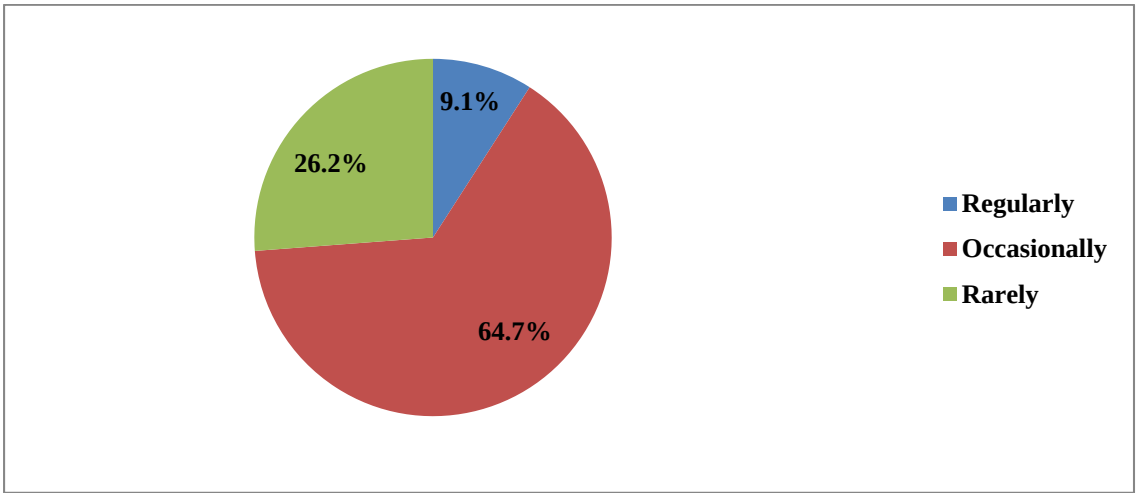


Figure two above shows that 9.1 percent read or listen to cholesterol build-up wellness information regularly, 64.7 percent of them occasionally read or listened to cholesterol build-up wellness information whereas 26.2 percent rarely read nor listen to cholesterol build-up information. The data indicate that bankers read and listen to cholesterol build-up wellness information though their readership and listenership of the information is not regular but occasional.

Table 5: Respondents' exposure to contrasting cholesterol build-up information

Responses	Frequency		%
Yes	239	64.8	
No	130	35.2	
Total	**369**		**100**

Source: Survey 2019

Table Five above shows that out of the 369 respondents who are exposed to and are aware of cholesterol build-up wellness information, 64.8 percent have been exposed to contrasting cholesterol build-up information while 35.2 percent have not been exposed to such information. The data indicate that a significant number of the bankers were exposed to contrasting messages about cholesterol build-up wellness.

Table Six: Respondents' form of exposure to cholesterol build-up wellness information

Responses	Frequency	%
Products' Advertisements	37	10
Products' labels	36	9.8
Disease Awareness Advertisement	-	-
News/Programmes	82	22.2
Medical Counselling	61	16.5
Interactions with Family and Friends	135	36.6
Academic publications	-	-
1, 2, 3 above	8	2.2
1 2,3, 4 and 5 above	9	2.4
All of the above	-	-
Total	**369**	**100**

Source: Survey 2019

Table Six above shows that 10 percent of the respondents got their exposure to cholesterol build-up wellness information in the form of products' adverts, 9.8 percent from products' labels, 22.2 percent from news and programmes, 16.5 percent of the respondents had their exposure through medical counselling, 36.6 percent of them from family and friends, whereas 2.2 percent of them got their exposure through products' adverts, products' labels and disease awareness advertisements. The other 2.4 percent got their exposure through products' adverts, products' labels and disease awareness advertisements as well as medical counselling and family and friends. The data illustrate that most of the bankers get their exposure to cholesterol build-up wellness information in the form of interactions with family and friends followed by news/programess and medical counselling. The data also indicate that the respondents did not get exposed to cholesterol build-up wellness information in the form of disease awareness advertisements, academic publications and a combination of all the forms.

Table 7: Respondents' source of awareness and exposure to cholesterol information

Responses	Frequency	%
Radio	-	-
Television	12	3.3
Newspaper	5	1.4%
Magazine	7	1.9%
Billboard	-	-
Internet/social media	154	41.7%
Interpersonal communication	45	12.2
Radio and Television	13	3.5%
Radio, TV, Newspaper & Magazine	-	-
Radio, TV, Newspaper, Magazine & billboard	-	-
Radio, TV, Newspaper, Magazine, billboard & internet	133	36
All of the above	-	-
Total	**369**	**100**

Source: Survey 2019

Table Seven above shows that 3.3 percent of the respondents' source of exposure and awareness about cholesterol build-up wellness information is television, 1.4 percent from newspapers, 1.9 percent from magazines, 41.7 percent from the internet and social media, 12.2 percent from interpersonal communication, 3.5 percent from radio and television whereas 36 percent say they get exposure to cholesterol build-up wellness information from radio, television, newspaper, magazine, billboard and the internet. The data indicate that internet alone dominates respondents' source of awareness and exposure to cholesterol build-up wellness information, followed by a combination of radio, television, newspaper, magazine, billboard and internet.

Respondents' Knowledge of Cholesterol Build-up

This section presents data on the knowledge of cholesterol build-up by the bankers with a view to finding out respondents' nature and extent of knowledge about cholesterol build-up.

Table Eight: Respondents' knowledge about causes of cholesterol build-up

Responses	Frequency	%
Diets High in Saturated fats	155	42
Hereditary	26	7
Sedentary lifestyle	104	28.2
Alcohol	41	11.1
Smoking	-	-

1, 2 and 3 above	37		10
1 2,3 and 4 above	6		1.7
All of the above	-	-	
Don't know	-		-
Total	**369**		**100**

Source: Field Survey 2019

The data in Table Eight above show that 42 percent of the respondents identified diets high in saturated fats as the only cause of cholesterol build-up, 7 percent attributed the cause to hereditary, 28.2 percent sedentary lifestyle, alcohol 11.1 percent while 10 percent and 1.7 percent attributed cholesterol build-up to a combination fats, hereditary and sedentary lifestyle, and fats, hereditary, sedentary lifestyle and alcohol respectively. The data indicate that the respondents have poor knowledge about the causes of cholesterol build-up as majority of the bankers could identify only a single cause of the condition; fats and sedentary lifestyle. Very few of them (7%) could identify hereditary as one of the causes of cholesterol build-up while only 10.2% could identify all the causes of cholesterol build-up (foods high in saturated fats, sedentary lifestyle and hereditary)

Table Nine: Respondents' knowledge of source of cholesterol in the body

Responses	**Frequency**	**%**
Liver	121	24.2
Lungs	-	-
Kidney	-	-
Foods	122	24.4
Oils	194	38.8
Alcohol	63	12.6
Don't know	-	-
Total	369	**100**

Source: Survey 2019

Table Nine above shows that 24 percent of the respondents identified liver as the major source of body cholesterol, another 24 percent said food is the major source of body cholesterol, 39 percent said most cholesterol in the body come from oils while 13 percent selected alcohol as the major source of body cholesterol. The data indicate poor knowledge of sources of body cholesterol since only 24 percent of the respondents could identify liver as the major sources of body cholesterol as against 76 percent (39 percent, 24 percent and 13 percent who think that most cholesterol in the body comes from oils, foods and alcohol respectively).

Table Ten: Respondents' knowledge of sources of dietary cholesterol

Responses	**Frequency**	**%**
Meat	47	12.7%
Oil	95	25.8%
Egg	64	17.3%
Milk	23	6.2%
Fruits	-	-
Vegetables	-	-
Sugar	-	-
1,2&3 above	-	-
1,2,3&4 above	140	38%
Don't know	-	-
Total	**369**	**100**

Source: Survey 2019

Table Ten above shows that 12.7 percent of the respondents identified meat alone as the source of dietary cholesterol, 25.8 percent identified only oil, 17.4 percent, egg only, 6.3 percent milk alone while 38 percent selected the combination of meat, oil, egg and milk as the sources of dietary cholesterol. None of the bankers selected the other options of fruits, vegetables or sugar which shows that they have a fair knowledge of the sources of dietary cholesterol. The data imply that over 60 percent of the bankers could identify at least one source of dietary cholesterol while only 37.9 percent could identify all the sources of dietary cholesterol.

Table Eleven: Responses on respondents' knowledge of the effects of cholesterol build-up

Responses	**Frequency**	**%**
Heart attack	82	22.2%
Heart diseases	55	14.9%
Stroke	92	24.9%
Diabetes	-	-
High blood pressure	-	-
Low blood pressure	-	-
1 and 2 above	-	-
1, 2, 3 above	140	38%
1, 2, 3 & 4 above	-	-
all of the above	-	-
Don't know	-	-
Total	**369**	**100**

Source: Survey 2019

Table Eleven above shows that 22.2 percent of the respondents said that cholesterol build-up causes heart attack, 14.9 percent said it causes heart diseases, 24.9 percent identified stroke only as the health condition caused by cholesterol build-up whereas 38 percent said cholesterol build-up causes heart attack, heart diseases and stroke as well. The data suggest that the majority of the respondents (62%) can identify at least one of the effects of cholesterol build-up on health while only 38 percent of them could identify all the three effects of cholesterol build-up on health.

Table Twelve: Respondents' knowledge about cholesterol build-up control

Responses	Frequency	**%**
Exercise	51	13.8%
Healthy Diets	48	13%
Cholesterol screening	26	7%
Cholesterol lowering drugs	77	20.9%
Blood transfusion	-	-
1, 2 & 3 above	11	3%
1, 2, 3 & 4 above	156	42.3
1, 2, 3, 4 & 5 above	-	-

All of the above	-	-
Don't know	-	-
Total	**369**	**100**

Source: Survey 2019

Table Twelve above shows that 13.8 percent of the respondents said cholesterol build-up can be controlled through exercise only, 13 percent said it can be controlled by eating healthy diets, 7 percent said cholesterol screening only, 20.9 percent of the respondents said only the use cholesterol lowering drugs can control cholesterol build-up, 3 percent said exercise, healthy diets and cholesterol screening are ways to control cholesterol build-up whereas 42.3 percent said exercise, healthy diets, cholesterol screening and cholesterol lowering drugs can control the build-up of cholesterol in the body. The data above indicate that although, majority of the bankers do not know all the recommended ways of controlling cholesterol build-up in the body, yet they can identify at least one of the ways. The data also indicate that greater percentages of the respondents (42.3%) are knowledgeable about ways of controlling cholesterol build-up.

Table Thirteen: Respondents' knowledge of cholesterol build-up controversies

Responses	**Frequency**	**%**
The causes	77	20.9%
The effects	71	19.2%
The sources	48	13%
cholesterol Control	-	-
Causes and Effects	66	17.9%
1,2 &3 above	18	4.9%
All of the above	-	-
Don't know	89	24.1%
Total	**369**	**100**

Source: Survey 2019

Table Thirteen above shows that 20.9 percent of the bankers said that the controversies surrounding cholesterol build-up is all about the causes, 19.2 percent said the effects of cholesterol build-up is the subject of the controversies, 13 percent said it is the sources that is generating the controversies, 17.9 percent said, both the causes and effects are still subject of controversies, 4.9 percent thinks that the causes, effects and sources are all subjects of controversies whereas 24.1 percent said they do not know which of the options is responsible for the cholesterol controversies. The data above are an indication that bankers are not very knowledgeable about cholesterol controversies despite that majority of them (64.8%) admitted in table six above, that they are exposed to contrasting cholesterol wellness information.

IV. Discussion of Findings

The data analyzed in this study were obtained from 500 bankers spread across branches of four commercial banks in Enugu state namely, Access bank, Firstbank, United Bank for Africa and Zenith bank. As stated earlier in Chapter One of this study, the main objective of this work was to ascertain the level of exposure and awareness, knowledge and source of cholesterol build-up information among sedentary workers in South East Nigeria. The discussion of Cholesterol Build-up Awareness and Knowledge in the study was based on Theory of Selective Exposure. This theory provided the basis for the discourses in this study. The selective exposure theory examines the respondents' media choice and extent of exposure to wellness information concerning cholesterol build-up.

From the data gathered, 73.8% of the respondents are very much aware of cholesterol build-up as they have at least once in a while read and listened to such information. The data also show that most of their exposure and awareness of cholesterol build-up wellness information come from the internet/social media (41.7%) and in form of interactions with family and friend (36.6%). This finding contradicts Anyasor, Adetunji, Ibrahim, and Adekunle (2015) study which indicated an inadequate level of awareness of the recommended dietary cholesterol allowance among the educated. The finding also disagrees with Uchenna, Ambakederemo and Jesuorobo (2012) study that found very poor awareness of heart disease prevention.

Also, only 10% and 24.2% of the respondents could correctly identify all the three major causes of cholesterol build-up and liver as the major source of cholesterol in the body, respectively, while only 17.9% of the bankers know the reason for cholesterol build-up controversies. However, the respondents demonstrated average knowledge about effects of cholesterol build-up and cholesterol build-up control as 38% of the bankers could identify all the effects of cholesterol build-up and sources of dietary cholesterol while 42.3% of them know all the ways cholesterol build-up can be controlled in the body. This finding corroborates Gautam (2012) study that found overall knowledge about cardiovascular disease among university students to be low and Obasuyi and Agwubike (2012) study which also found inadequate/poor knowledge of CVD among bankers. The study equally agrees with Akintunde, Akintunde and Opadijo (2012) study that found poor knowledge of CVD among university workers.

V. Conclusion

This study revealed high level of exposure and awareness of cholesterol build-up wellness information, average knowledge of some aspects of cholesterol build-up wellness, especially the effects of cholesterol build-up, cholesterol build-up control and sources of dietary cholesterol and poor knowledge of causes and sources of cholesterol. It can be inferred from this study that awareness and exposure to cholesterol build-up wellness information has not provided the bankers with adequate knowledge. By implication the theory of Selective Exposure used in this work is upheld. The assumption in this theory was that media consumers have choices to select medium and media contents or programmes to satisfy their health information needs and even when they choose to expose themselves to particular health information, they may selectively decide on the aspect of the exposed health information they will retain, In line with their already existing ideas, knowledge, beliefs, attitudes or dispositions toward the issue. The findings in this study are consistent with this

theory since the respondents demonstrated better knowledge and understanding of some aspects of cholesterol build-up wellness (effects of cholesterol build-up, cholesterol build-up control and sources of dietary cholesterol) over the others (causes of cholesterol build-up, sources of body cholesterol and cholesterol controversies).

VI. Recommendations

Based on the findings of this study and conclusion drawn, the following recommendations were made to address the issue of inadequate cholesterol build-up knowledge among sedentary workers in South East Nigeria:

i. There is need for more awareness and enlightenment campaigns specifically on cholesterol build-up wellness. This will lead to acquisition of more cholesterol information that will improve knowledge concerning cholesterol.

ii. Banks and other organisations with predominantly sedentary workforce should from time to time invite experts to educate their personnel on cholesterol build-up wellness to enhance their knowledge and to encourage healthy lifestyles, healthy diets and physical activities.

iii. Mass media should engage more in reportage and discussions on cholesterol research, findings and debates to present the public with up-to date authentic cholesterol build-up news and information.

iv. Mass media should ensure that cholesterol build-up news and wellness information targeting sedentary workers are also available online since sedentary workers rely more on internet/social media for their exposure and awareness.

References

[1] Ackroyd, S., & Hughes, J. (1981). Data collection in context. New York, USA: Longman

[2] Ajai, J.T. & Amuche, C.I (2015). Educational research methods and statistics. Abuja: Academic House Publishers Nigeria Ltd.

[3] Akintunde, A., Akintunde, T., & Opadijo, O. (2012). Knowledge of heart disease risk factors among workers in a Nigerian University: A call for concern. Nigerian Medical Journal Vol. 56

[4] Advanced Cardiovascular Life Support (ACLS). (2019). Cholesterol Build up. Educational Articles. Retrieved from https://www.acls.net/cholesterol-build-up.htm June23, 2017

[5] American Broadcasting Corporation. (November, 2013). Catalyst Challenges the mainstream. Retrieved from https://www.abc.net.au/mediawatch/episodes/catalyst-challenges-the-mainstream/9980708. July 15, 2017

[6] American Heart Association (2018). Check, Change, Control Cholesterol: My Cholesterol Guide. Retrieved from https://www.heart.org/-/media/files/health-topics/cholesterol/cccc_my-cholesterol-guide.pdf June 26, 2019

[7] American Heart Association (2011). Why Cholesterol Matters. Retrieved from http://www.heart.org/HEARTORG/Conditions/Cholesterol/WhyCholesterolMatters/Why-Cholesterol-Matters_UCM_001212_Article.jsp#.TwqC4G9SQYk May 15, 2017

[8] Anyasor, G.N., Adetunji, J.A., Ibrahim, H.O & Adekunle, A. (2015). Knowledge of recommended dietary cholesterol allowance in an academic community, African Journal of Food, Agriculture, Nutrition and Development, 15(1) Retrieved from https://www.ajol.info/index.php/ajfand/article/view/113411. May 15, 2017

[9] ANZTPA, (2005). Australia New Zealand Therapeutic Products Draft Advertising Code. Retrieved from http://www.anztpa.org/advert/advmodel.htm June 2, 2017

[10] Beauchamp, M. (2005). See me, hear me, touch me: A multisensory integration to lateral occipital temporal cortex. Current Opinion in Neurobiology 15(2):145-53

[11] Biesta G., & Osberg, D. (2007). Beyond representation: a case for updating the epistemology of schooling. Interchange, 38:15–9.

[12] Buckley, J.P., Hedge, A., Yates, T., Copeland, R.J., Loosemore, M., Hammer, M.,…Dunstan, D.W. (2015). The sedentary office: an expert statement on the growing case for change towards better health and productivity. Br J Sports Med 49(21)

doi: 10.1136/bjsports-2015-094618

[13] Butterworth, M (2012) Knowledge, Perceptions, and Practices: Mosquito-borne Disease Transmission in Southwest Virginia. Unpublished Master's Thesis submitted to the faculty of the Virginia Polytechnic Institute and State University

[14] Colpo, A. (2005). LDL Cholesterol: Bad. Cholesterol or Bad Science? Journal of American Physicians and Surgeons Volume 10 Number 3

[15] Conolly, M. (2016)."Improving Workplace Wellness at Kaiser Permanente". Unpublished Master's Thesis, University of San Francisco. Retrieved from http://repository.usfca.edu/capstone January 10, 2017

[16] Gabriano, J. (2011). Cholesterol Controversy: Past Present and Future, Scientific America. Retrieved from http://www.scientificamerica.com/guesblog/cholesterolcontroversy/pastpresentandfuture

[17] Gautam, Y. (2012). A study of assessing knowledge and health beliefs about cardiovascular disease among selected undergraduate university students using Health Belief Model. Unpublished PhD Dissertation submitted to Health Education in the Graduate School, Southern Illinois University, Carbondale.

[18] Hall, D.V., & Jones, S.C. (2007). Branding of prescription medicines to Australian consumers. Australasian Marketing Journal 15(2): 97–107.

[19] Hall, D.V. (2008). High levels of confusion for cholesterol awareness campaigns. Medical Journal of Australia 189(6): 326–328.

[20] Hart, W., Albarracín, D., Eagly, A., Brechan, I., Lindberg, M., Merrill, L. (2009). "Feeling validated versus being correct: A meta-analysis of selective exposure to information.". Psychological Bulletin 135 (4): 555–588.PMC 4797953 PMID 19586162. doi:10.1037/a0015701

[21] Hendriksen, I.J., Bernaards, C.M., Commissaris, D.A., Proper, K.I., VanMechelen, W., Hildebrandt, V.H. (2013). Position statement. Langdurig zitten: een nieuwe bedreiging voor onze gezondheid (prolonged sitting: a new threat for our health). TSG. 91: 22–25.

[22] Klapper, J. T. (1960). The effects of mass communication. New York, NY, US: Free Press

[23] Kim, H., Forquer, H., Rusko, J., Hornik, R., & Cappella, J. (2016). Selective exposure to health information: The role of headline features in the choice of health newsletter articles. Media Psychology.Retrieved from https://www.asc.upenn.edu/news-events/publications/selective-exposure-health-information-role-headline-features-choice- health July 15, 2017

[24] Knobloch-Westerwick, S. (2015). Choice and preference in media use: Advances in selective exposure theory and research. New York, Routledge.

[25] Li, Y. D. (2008). Knowledge and awareness of risk factors for cardiovascular disease in the Ga-Rankuwa community. Health SA Gesonheid University of Johannesburg, South Africa.

[26] Mintzes B. (2006). Disease mongering in drug promotion: do governments have a regulatory role? Public Library of Science: Medicine 4(3): 1–5. DOI: 10.1371/journal.pmed.0030198.

[27] Neubig, J. (2013). Analysis of Factors that Influence Men And Women 25 to 44 Years of Age to Seek Preventive Cholesterol Exams: Establishing Effective Communication Campaigns. Unpublished Masters Degree Thesis, University of Florida

[28] Obasuyi, O & Agwubike, E. (2012). The Promotion of Cardiovascular Wellness Through Physical Activities Among Bank Workers In Benin City, Edo State, Nigeria. European Journal of Educational Studies 4(1)

[29] Okpuzor, J., Okochi, V.I., Ogbunugafor, H.A., Ogbonnia, S., Fagbayi, T., & Obidiegwu, C. (2009). Estimation of Cholesterol Level in Different Brands of Vegetable Oils. Pakistan Journal of Nutrition, 8: 57-62. DOI: 10.3923/pjn.2009.57.62 Retrieved from http://scialert.net/abstract/?doi=pjn.2009.57.62 July 16, 2017

[30] Oladapo, O. O; Salako, L; Sadiq, L; Soyinka, K; Falase, A. O. (2013) Knowledge of Hypertension and other Risk Factors for Heart Disease among Yoruba Rural Southwestern Nigerian Population. British Journal of Medicine and Medical Research, 3

[31] Rozin, P & Rozyman, E. (2001). Negativity bias, negativity dominance, and contagion. Personality and social psychology review 5 (4) https://doi.org/10.1207/S15327957PSPR0504_2

[32] Sullivan, Larry E., ed. (2009). Selective Exposure. The SAGE Glossary of the Social and Behavioral Sciences. SAGE Publications. p. 465

[33] Uchenna, D.I., Ambakederemo, T.E., Jesuorobo, D.E. (2012). Awareness of Heart Disease Prevention Among Patients Attending a Specialist Clinic in Southern Nigeria", International Journal of Prevention and Treatment, Vol. 1 No. 3,

[34] Washington Post (February, 2015). The U.S. Government is Poised to Withdraw Longstanding Warnings about Cholesterol. Retrieved from http://www.washingtonpost.com/blogs/wonkblog/wp/2015/02/10/feds-poised-to- withdraw-longstanding-warnings-about-dietary-cholesterol/

[35] Wimmer, R & Dominick, J. (2011). Mass Media Research: An Introduction. Boston. Wadsworth Cengage Learning

[36] World Heart Federation. (2010). Annual Report 2010. Retrieved from http://www.world-heart federation.org/annual-report-2010-pdfl/ July 2, 2017

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