

CAUSES OF SUDDEN DEATH SYNDROME AMONG WORKING CLASS IN BENUE STATE, NIGERIA

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Benedict Terkaa Iornyagh

Benue State University, Makurdi

Peter Aondofa Kwaghtser

Federal University of Lafia, Lafia

Emmanuel Washima Angyo

Donald Tarfa Ende

Benue State University, Makurdi

Abstract

Sudden death syndrome (SDS) is one of the major causes of death worldwide, while cardiovascular disease is the leading cause of SDS accounting for almost 17.9 million deaths annually of all global mortality. Sub-Saharan Africa including Nigeria experiences unacceptably high cases of SDS more than other parts of the world. Thus, this study examined the incidence or volume of, and causes of SDS among working class in Benue state, Nigeria. A socio-ecological model was used to describe the incidence or volume, and causes of SDS among the working class. A descriptive survey design and a cluster sampling technique were used where a total sample of 500 respondents comprising of working class in Benue state were chosen via the Z-score formula for sample selection. Structured questionnaires and key informant interviews were the instruments used for data collection. Data was analyzed using quantitative and qualitative techniques of data analysis. Findings of the study revealed that incidence or volume of SDS was high about 90% among working class in Benue state. Secondly, the study revealed that hypertension, diabetes mellitus, stroke, stress, age, and life styles (physical inactivity, excessive alcoholic consumption, too much salt

Corresponding Author:

Benedict Terkaa Iornyagh

Email: benterkaa628@gmail.com

intake and unbalanced diet) are causes of SDS among the working class in Benue state. With these findings the study recommended that, government should improve working conditions of the working class to reduce the incidence of work stress that eventually culminates to SDS. Secondly, individuals, particularly the working class should endeavour to change their life styles and consider and or continue routine physical exercises, reduce salt and sugar intake, cut excessive alcohol consumption, and regular medical checkups, to prevent or manage diseases leading to SDS.

Keywords: Sudden death syndrome, working class, life style, hypertension, diabetes mellitus.

Introduction

Sudden death syndrome (SDS) is one of the major causes of death worldwide, (Holland, 2019). It is mysterious and bizarre when on many occasions a person who appears physically normal and healthy slumps and dies. Ordinarily, when such deaths occur, they are listed as deaths by natural cause or heart attack. But then, if a coroner takes steps to understand the precise cause, they may be able to detect symptoms of one or some of the syndromes of SDS (Holland, 2019). SDS is a whole term or a loosely defined umbrella term for a series of cardiac syndromes that causes sudden cardiac arrest and possibly death of individuals (Holland, 2019). It also refers to sudden cardiac Death (SCD) which is a sudden, unexpected death caused by loss of heart function (Cleveland, 2019). SDS occurs most frequently in adults aged between 30 and 40, and affects men twice as often as it does to women, but rarely affects children (Cleveland, 2019).

Globally, cardiovascular disease is a leading cause of SDS accounting for almost 17.9 million deaths annually or 30% of all global mortality (World Health Organization - WHO, 2021). It causes twice as many deaths as HIV, malaria, and tuberculosis (TB) put together in developing countries (WHO, 2021). The largest cause of natural deaths in the United States (US), is sudden cardiac death related which causes about 325,000 adult deaths in the US each year with an annual incidence of 0.1%-0.2% (Cleveland, 2019 and Ogunlade, 2011). According to Empana, Lerna, Valentin, Folke, Bottiger, Gislason, Jonsson, Ringh, Begandon, Bongin, Marijon, Blom, Tan, Jouven, &

ESCAPE-NET Investigators (2022), the average annual incidence of sudden cardiac death ranged from 36.8 to 39.7 per 100,000 in European countries. This finding is not far from that of Nanko and Shimzu (2022), who reported the incidence of sudden cardiac death per 100,000 people per year to be 34.4 in Europe, 53.1 people in North America, 59.4 people in Asia, and 49.7 people in Australia. In Africa, unfortunately, statistics on the incidence of cardiovascular disease are not handy and in many sub-Saharan African countries there is no information or only poor quality data. However, it is estimated that about 300,000 cases of sudden cardiac death occur each year in Africa (Chin, 2014).

Apparently, there are rising number of Nigerians who suddenly die without explanation as to the cause of their death. Even though only the cases of prominent Nigerians are mostly reported, health experts said that hundreds of thousand Nigerians lost their lives to SDS in recent times (ThisDay, 2021). However, there is scarce statistics about the incidence of SDS in Nigeria as many of the deaths are not officially reported and those recorded in hospitals hardly pass through autopsy and are ordinarily believed to be of natural causes. But SDS deaths if were properly examined would stem from heart diseases or cardiac arrest as many studies have stated. There are rising cases of hypertension, diabetes, stroke and fatalities especially among civil servants in Nigeria (ThisDay, 2021). Official statistics have not revealed the number and rate of death of working class due to SDS in Nigeria, though many workers often die in their line of work or in their offices, cars, houses or when performing any physical function.

Perhaps, many factors have been perceived and attributed to SDS to include diet, smoking, alcohol consumption, sedentary life style, congenital heart disease, and emotional stress or long term anxiety (The Heart Foundation of Australia, 2013). Although many risk factors are always pointed at when SDS occurs, however, many people who suffer SDS remain asymptomatic before their death. By extension, it is essential for people especially (adults) to keep an eye to control factors that would risk their lives through SDS, than symptoms that may likely not manifest.

There are rampant cases of unexplained deaths especially in sub-Saharan Africa including Nigeria today. Cases of people slumping and dying in offices and other public places due to stress, high blood pressure, stroke,

diabetes, age, and physical inactivity or generally unexplainable have been on the rise among many the working class in Nigeria (WHO, 2021 and ThisDay,2021). What is more, millions of people in Nigeria are living with high blood pressure but are not aware of their health status (Uloko, Musa, Ramalan, Gezawa, Puepet, Uloko, Borodo, and Sada, 2018). Sensitizations and awareness have been made by health pundits for Nigerians especially working adults to check their health status regularly and also engage in physical exercises to reduce their chances of SDS (ThisDay, 2021). Yet, people die unexpectedly during work, public functions, relaxation or during sleep.

According to WHO (2021), most sudden cardiac deaths can be prevented by addressing behavioural risk factors such as tobacco use, unhealthy diet and obesity, physical inactivity and harmful use of alcohol. Salient to sudden cardiac death reduction is the inclusion of disease management interventions and adherence to prevention guidelines in universal health coverage package (WHO, 2021). However, in many countries including Nigeria, health systems require significant investment and reorientation to effectively manage cardiovascular diseases (WHO, 2021). In most cases, SDS is asymptomatic and requires life style changes to avoid or prevent its occurrence. Due to lack of or insufficient data on the incidence of SDS in Nigeria owing to many cases occurring out of hospital, it appears SDS is not a serious live threat or is rare. Whereas, many people are dying silently especially, the working class as a result of stress, and other preventable causes. It is as a result of the perceived rampant cases among working class in Benue State that this study is set out to investigate the prevalence and causes of SDS and bring to limelight for possible precaution to reduce the scourge.

Specifically, this study aims to achieve the following objectives:

- i. To find out the incidence or volume of SDS among the working class in Benue State,
- ii. To identify causes of SDS among working class in Benue State.

Conceptual clarifications

The following conceptual issues are clarified:

Sudden death syndrome (SDS)

Sudden Death Syndrome (SDS), also known as Sudden Cardiac Death (SCD) is defined as natural death from cardiac causes heralded by sharp loss of consciousness within one hour of onset of acute change in cardiovascular status in an individual who may have known pre-existing heart disease but in whom the time and mode of death is unexpected (Ogunlade, 2011). Cleveland (2019) defined SDS as a sudden, unexpected death caused by loss of a heart function, sudden cardiac arrest, mostly affecting adults in a given population. It is also defined as when someone die suddenly and unexpectedly from a cardiac arrest, but the cause of the cardiac arrest cannot be identified (British Heart Foundation, n.d.). It implies that SDS is a death that occurs to an individual unexpectedly within a short period of time (1-24hours) from noticeable or no symptoms.

Working Class

According to Kenton (2021), the concept working class is a socioeconomic term used to describe persons in a social class marked by jobs that provide low pay, require limited skills, or physical labor. In another view, Cliffs (2022) defined the working class as the minimally educated people who engage in manual labor with meagre or total lack of prestige. On a different note, working class typically refers to a subsection of the labor force that works in the service or industrial sectors and does not hold a four year college degree (Marticio, 2022). Else, the working class also known as the laboring class comprises those engaged in manual-labour occupations or industrial works, who are remunerated through waged or salaried contracts (Wikipedia, 2015). This definition better suit the direction of this study as it is focused on people who are at lower levels, as well as graduates or post graduates, employed and are paid wages or salaries in government ministries and departments.

Literature Review

Literature is reviewed on the following themes:

Incidence of SDS in working class people

Sudden death occurs in all age groups including infants (where refers to as

sudden infant death syndrome), children and youths, adults and the elderly (Nofa, Abdulmohsen and Khamis, 2011). According to Winkel, Risgaard, Lynge, Ghinge, Bundgaard, Hunso, & Tfet (2017), sudden death occurs more in men than women, as the annual rate of sudden death in women is almost half of that of men. Similarly, Butters, Arnott, Sweeting, Winkel, Semsarian and Ingles(2021), revealed that the overall incidence of sudden cardiac death is considerably lower among women than men. However, few studies conducted about SDS in Nigeria affirm scanty or sparse data about incidence of SDS. Nevertheless, those studies revealed that SDS is on the rise as one of the major causes of deaths in Nigeria (Thisday, 2021). For instance, a study conducted by Akinwusi, Komolafe, Olayemi, Adeomi (2013) between 2003 and 2011 in Western Nigeria on the pattern of sudden death revealed that SD accounted for 4.0% (29/718) of all adult mortality. This incidence though is however compared to Western rates and that of Saudi Arabia in Previous studies is still significant and worrisome for a developing nation like Nigeria. More so, the incidence could be higher when unofficial cases are summed up for a low socio-economic country like Nigeria, where, except for violent deaths, autopsy rarely takes place for unexplained deaths.

Another study conducted in Jos, North Central of Nigeria showed that SD is high in Nigeria as cardiovascular disease was responsible for 63.0% of all sudden natural deaths (Akinwusi, Komolafe, Olayemi, Adeomi 2013). Of all the studies conducted about sudden deaths in Nigeria, none has focused on working class people. It is observed that the working class people in Nigeria are dying in numbers in the country but hardly reported and this causes concern.

Predisposing Factors of Sudden death Syndrome

According to Nofal, Abdulmohsen and Khamis (2011), the risk factors of SD include: old age, low and high body mass index, arterial hypertension, diabetes mellitus, smoking, sedentary life style, unhealthy diet and stress.

Hypertension: Hypertension also known as high blood pressure is prevalent in Nigeria ranging from 8.0% to 46.4% with people of high socio-economic status (Akinwusi, Komolafe, Olayemi and Adeomi, 2013).

Although findings have not been consistent, elevated blood pressure

and hypertension have been associated with increased risk of sudden death (Pau, Hibino, Kobeissi & Aune, 2020). Elevated blood pressure is the single largest contributor to the global burdens of disease, responsible for two-thirds of strokes, half of coronary heart disease cases and a total of 9.4 million global deaths per year (Pau, Hibino, Kobeissi, & Aune, 2020). According to Faduyile, Soyemi, Sanni and Wright (2019), hypertension is a commonly encountered, important, and major public health concern globally. A study from 1998 through 2008 by Twagirumukiza, De Bacquer, Kips, De Backer, Stichele, & Van Bortel in Sub-Saharan Africa shows the comparison of the prevalence of hypertension in different parts of the region, including Nigeria, and the overall prevalence of hypertension in 2008 was estimated at 16.2% ranging from 10.6% in Ethiopia to 26.9% in Ghana (Twagirumuka, De Bacquer, Kips, De Backer, Sticheve & Bortel, 2011). Thus, the relationship between hypertensive heart disease and sudden cardiac death is well established although there are few pathological studies (Westaby, Miles, Cluster, Cooper, Antorios, Meijlis, Behr & Sheppard, 2022).

Diabetes Mellitus: Diabetes Mellitus has long been linked to an increased risk of sudden cardiac death (Bergner & Goldberger, 2010). In 1997 and 2003, the crude prevalence of diabetes mellitus in Nigeria was 2.2% and 6.8% respectively (Akinwusi et al, 2013). It observed that the risk factor of SDS, diabetes mellitus affects 11.2million Nigerians, that is, 1 out of every 17 adults is living with the disease (Uloko, Musa, Ramalan, Gezawa, Puepet, Uloko, Borodo and Sada, 2018).

Potential factors contributing to the increased risk of sudden cardiac death observed in patients with diabetes mellitus include silent myocardial ischemia, autonomic nervous system dysfunction, abnormal cardiac repolarization, hypoglycemia, a hypercoagulable state secondary diabetes mellitus, diabetic cardiomyopathy, and impaired respiratory response to hypoxia and hypercapnia (Bergner & Goldberger, 2010). Diabetes mellitus does appear to be associated with increased risk of sudden cardiac death.

Stroke: According to Muanya (2016), some studies carried out by Nigeria teaching hospitals have identified stroke among others as the cause of sudden death in people. Stroke is responsible for 149 deaths (52.8%) per

low death in Nigeria (Muanya, 2016). Generally, stroke is the fifth leading cause of death in people aged 15-59 years worldwide, and it is among the most common causes of sudden non-cardiac death in the young (Agesen, Risgaard, Zachariasardottiv, Jabbari, Lyngge, Ingemann-Hansen, Ottsen, Thomsen, Haunso, Krieger, Winkel, and Tfelt-Hansen, 2018). Most deaths are found in developing countries, and account for as many as 87% of all stroke deaths, and the heavy death toll is even more in sub-Saharan Africa including Nigeria (Ekeh, Ogunniyi, Isamade, and Ekrikpo, 2015).

Stress: According to Batelaan Seldenrijk, van de Heuvel, van Balkom, Kaiser, Reneman and Tam (2002), anxiety symptoms and symptoms of mental stress have been linked to the occurrence of sudden cardiac arrest. Resulting to the development of society nowadays, people's pace of work and life is precipitating, with increasing physical and mental stress (Zhu, Han & LI, 2019). This has resulted into long-term physical fatigue and excessive mental load, and consequent adverse emotions such as depression and irritability, which form the unfavourable stress state that is currently common among people (Zhu, Han & LI, 2019). Thus, it is not uncommon that chronic fatigue stress has caused sudden death of young people, in developed countries and elsewhere (Zhu, Han, & LI, 2019). For instance, 80% of white-collar workers in China are reported to be in the state of over fatigue presently, and about 95.7% of young people have died of fatigue-related diseases (Meng, Wang & Gao in Zhu, Han & Li, 2019).

There is scanty information about incidence of stress and sudden death in Nigeria. Yet, the effect of stress on emotional and physical health of people in Nigeria is devastating (Obinna, 2018)). The level of stress in Nigerian companies, for instance, is described as very high and alarming, because Nigerian employers do not adhere to set standards given by the international labour organization (Fadare, 2021). Poor working conditions are common in Nigeria and form a major cause for stress for working class (Fadare, 2021). Although stress is harmful and may lead to sudden deaths, studies reporting the incidence are sparse in Nigeria.

Age: Age is mentioned as a factor affecting sudden death in working class, as people who are advanced in years die suddenly more than younger ones

(Muanya, 2016). According to a report by Mayo (2022), most sudden cardiac deaths are in older adults, particularly those with heart disease. Yet, sudden cardiac arrest is the leading cause of death in young athletes (Mayo, 2022). There are variations in estimates, but some reports suggest that about 1 in 50,000 to 1 in 80,000 young athletes die of sudden cardiac death each year. In Nigeria, the average age of most of the victims of sudden death is 47.3years (Muanya, 2016). The low statistics of sudden death in Nigeria is attributed to majority of deaths that occur outside of hospital setting and It is important therefore to note and take appropriate public health strategies to prevent and reduce incessant cases (This Day, 2021).

Lifestyle: According to Dimarco (2011), four lifestyle factors such as smoking, exercise, diet and weight are related to the incidence of sudden cardiac death. Non-smokers, those who exercised regularly, and those adhering to Mediterranean diet (lots of healthy foods like whole grains, fruits, vegetables, seafood, beans, and nuts), have a lower risk of sudden death (Dimarco, 2011). Also, maintaining a body mass index lower than 25, lowers the risk of sudden cardiac death (Dimarco, 2011). It is obvious that increased salt and fat intake, tobacco intake, excessive alcoholic consumption, lack of physical exercise are some of the major correlations of sudden death of Nigeria, especially the working class (Muanya, 2016).

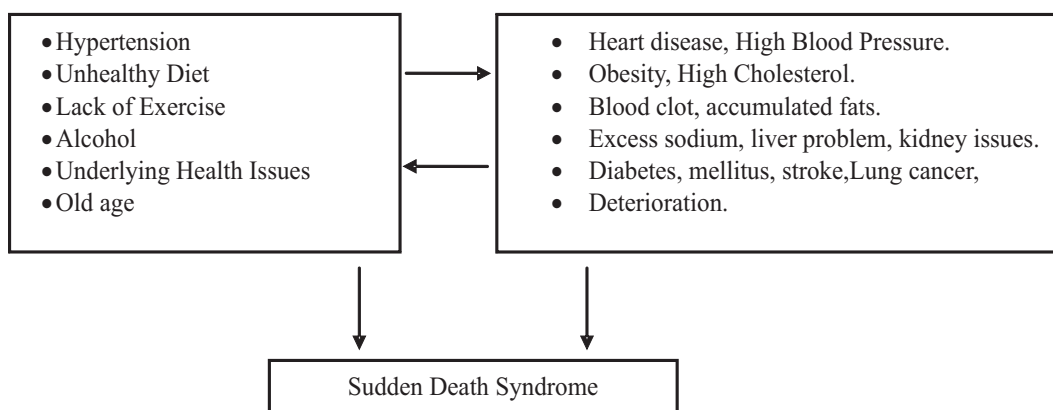
Theoretical Framework

The socio-ecological model of health behavior is used for this study. This is an ecological model of health behaviour, drawn from a biological science of ecology, used to explain public health issues. The ecology model is interested in capturing the interplay between an organism and its environment (Rejeski and Fanning, 2019). A key argument of this model is that, investigators can investigate individuals at different levels of influence, including the individual, community, state or national level (Rejeski & Fanning, 2019). But then, effective behaviour change likely needs to consider the individual as affected by these various levels of influence (Rejeski & Fanning, 2019).

Therefore, the likelihood an individual sets a goal to better engage in exercise, commute in active manner, or reduce sitting will be influenced by

their built i.e. are there bike paths and healthy food options and again do social environments support healthy behaviour? (Rejeski & Fanning, 2019). Similarly, the extent to which the environment is low-stress and perceived as safe may help or impede an individual's ability to stick to behavioral goals (Rejeski & Fanning, 2019). It is apparent that both the physical and social environment plays significant roles on health behaviours as individual, state and working environments have effects on SDS.

Conceptual Framework



Source: Author's compilation.

The above conceptual framework is a diagrammatical representation of factors affecting sudden death syndrome. The first box shows factors that determine sudden death syndrome among working class people. The second dialog box listed some of the intervening variables that trigger SDS stemming from the independent variables earlier shown as the risk factors. The diagram shows that all or any of these factors is highly correlated to sudden death in working class people in Benue stat, Nigeria.

Methodology

The study adopted a descriptive survey design to observe the working class in Benue State as its target population. Cluster sampling was used to divide the state which is wide into four (4) clusters representing major towns of the state including Makurdi, Gboko, Otukpo and Vandeikya. A total of 500 civil servants were drawn using Z-score sample calculator. Again a total of 30

health workers were drawn from the health facilities in various clusters through a systematic random sampling bringing the total number of respondents to 530. Instruments for data collection were the questionnaire and structured interview and data was analyzed both quantitatively and qualitatively.

The data presented in table 1 shows the demographic variables of respondents. Regarding the gender of respondents the male category 255(57.3%) dominated the study against the female respondents. This implies that more male were working class and perhaps suffer SDS more than their female counterparts. Those who aged between 50-59 years participate in this study more than the younger and older population. It does appear the average age of 50-59 (middle adults) have a modal population in working class and were prone to SDS more than the other categories. Virtually, people who die suddenly and the cause of their death cannot be explained are mostly young people and middle adults. Majority of these

Results

445 out of 500 questionnaires administered to respondents were returned.

Table 1: Socio-demographic

Variable	Frequency	Percent
<u>Sex</u>		
M	255	57.30
F	190	42.70
Total	445	100%
<u>Age</u>		
20-29	50	11.2
30-39	72	16.2
40-49	103	22.2
50-59	126	28.3
60 above	94	21.1
Total	445	100%
<u>Occupational Rank</u>		
Senior Cadre	161	36.18
Middle Cadre	204	45.84
Junior Cadre	80	17.98
Total	445	100%

Religion

Christianity	291	65.39
Islamic	19	4.27
Traditional	108	24.27
Others	27	6.07
Total	445	100%

Source: field survey, 2022.

people collapse and sometimes are not revived. The middle cadre rank with 204(45.84%) participated more than the senior and Junior cadre respondents. This result, by implication shows that more of the working class people are in the middle of hierarchy of civil and local government service and because of long hours of work over a period of time suffer SDS more than other ranks. In terms of religion, 291 (65.39%) are Christians and participate more than other religions in the study. Christians constitute the working class people in Benue State more than Muslims and experiences more SDS than others.

Table 2: Incidence of SDS by rank

In table 2, respondents stated their opinions and ranked incidence of SDS by level or cadre of working class people and their responses showed that the middle cadre has the highest level of incidence of SDS 297(66.74%), while the senior cadre and the junior cadre have moderate cases of SDS with the frequency of opinions ranging between 247(55.51%) and 200(44.94%) respectively. Data from key informant interview regarding this issue is below:

I have worked with Federal Medical Centre (FMC) Makurdi, for over 15 years now. We have been receiving many cases of sudden death and most of

Rank	High		Moderate		Low		Total
	N	%N	%	N	%N	%	
Senior Level	115	(25.84)	247	(55.51)	83	(18.65)	445
Middle Level	297	(66.74)	108	(24.27)	40	(8.99)	445
Junior Level	100	(22.47)	200	(44.94)	145	(32.58)	445

Source: Field Survey, 2022.

the victims are middle aged working class. (Source: KII, 20th June, Male, Nurse, Aged 45, Gboko L.G.A. 2022).I worked here in General Hospital, Gboko, for more than 12 years now. In a month we do receive almost 90 cases of slumped dead by people who are mostly middle level civil servants (Source: KII, 26th June, Male physician, Age 40, Buruku L.G.A., 2022).

The study found that there was high incidence of sudden death syndrome among working class people in Benue state is on the spree.. This finding is parallel to that of Akinwusi, Komolafe, Olayemi, Adeomi, (2013) who found that SDS is high in Nigeria particularly due to cardiovascular disease.

Table 3:Incidence of SDS by Gender

In table 3, some respondents 255(57.30%) in table 3 stated that incidence of SDS occurs more in men and majority of the respondents 290(65.16%) affirmed that incidence of SDS is low in females in working class people. The implication of this data is that men frequently die of sudden and unexplained deaths more than the female. Data from key informant interview regarding this issue is below:

I have worked in General Hospital, Vandeikya, close to 15years today. Many cases of SDS are brought to this hospital, but majority of the victims are Males (Source: KII, 1st July, Male, Lab Technician Katsina Ala L.G.A., 2022).

Rank	Opinions								
	High		Moderate		Low		Total		
	N	%N	%	N	%N	%			
Male	255	(57.30)	115	(25.84)	75	(16.85)			
Female		50	(11.24)	105	(23.60)	290	(65.16)	445	(100)

Source: Field Survey, 2022.

The above finding implies that SDS affects all but mostly men of middle age who work in various capacities to live. The finding is similar that by Winkel, Risgaard, Lynge, Ghinge, Bundgaard, Hunso, & Tfet (2017), who revealed that sudden death occurs more in men than women, as the annual rate of sudden death in women is almost half of that of men.

Table 4: Predisposing Factors of SDS

Opinion	Frequency	Percent
Old age	20	4.49ertension
Hypertension	91	20.45
Work stress	63	14.16
Lack of physical exercise	70	15.73
Unhealthy diet	77	17.30
Excessive alcoholic consumption	70	15.73
Underlying Health issue (diabetes mellitus)	54	12.14
Total	445	100%

Source: Field Survey, 2022

Data in table four (4) shows respondents, opinion on the predisposing factors that affect SDS among working class in Benue state and 91 (20.45%) respondents opined that hypertension is one of the major perceived risk factor, of SDS. Similarly, 77 (17.30%) stated that most of the victims of SDS engaged in unhealthy dieting, 70(15,73%) each revealed that SDS victims indulged in excessive alcohol and lived a sedentary life. Again, 54(12.14%) respondents agreed that others who die suddenly had pre-existed cases of ill health like diabetes mellitus, stroke and obesity, and 20(4.49%) of respondents stated that some of victims of SDS die because of old age. This data implies that; SDS usually occurs as a result of some or all of the aforementioned factors. Data from key informant interview regarding this issue is below:

I have worked here in General Hospital, Otukpo, and other health facilities for a number of years. I can say blood pressure, poor exercise, inadequate feeding, stress, lack of rest, diabetes and stroke

kills people unexpectedly (Source: KII, 30th June, Male, Health Extension Worker, Aged 38years, Gwer-East, 2022).

Findings about the risk factors of SDS from this study revealed that hypertension, unhealthy diet, excessive alcoholic intake, work stress, underlying health issues and old age are some of the major factors attributed to SDS among working class people in Benue state. This finding is related to Muanya (2016), who stated that heart attack, stroke, old age, increased salt and fat intake, tobacco use and lack of physical exercise correlate with the unexplained deaths in Nigeria.

Conclusion

If public health measures are taken with lax, many working class would continue to suffer SDS and the volume or incidence of the scourge will continue to swell up. And the implication of this unfortunate event directly or indirectly affects the work force and lowering productivity, on one hand. On the other hand, though social and physical environments remain in the state of flux, if periodic measures are not put in place to checkmate lifestyles of the working class, SDS will continue to manifest leaving the bereaved grieved and creating gaps in communities, states, and works.

Recommendations

The following recommendations were made based on the findings and conclusion of this study.

- ⇒ First, the employers of labour and other relevant bodies should provide enabling environment for workers. This will cushion and decimate the rising volume of sudden death syndrome among workers.
- ⇒ Working class should reduce salt intake, sugar intake and excessive alcoholic consumption and embark on regular physical exercise, ensure adequate rest, routine medical checkup, , as well as avoid things that will give physical and mental stress, to cushion the effect of SDS.

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