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# **Review Article**

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# Psycho-Oncology: Cancer Awareness, Lifestyles, Causes, Impacts, Support, Preventions and Management

# Ayodele Oluwole Ojebiyi

Researcher Assistant Director, National Space Research & Development Agency Abuja (Obasanjo Space Centre) Federal Ministry of Science, Technology and Innovation.

# \*Corresponding Author

Ayodele Oluwole Ojebiyi, Researcher Assistant Director, National Space Research & Development Agency Abuja (Obasanjo Space Centre) Federal Ministry of Science, Technology and Innovation.

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#### **Abstract**

The study reviews peoples' experiences with cancer, the behavioral aspect of coping with cancer; cancer awareness; causes, psychological impacts and support, diagnosis and cancer management. Literature searches were centered on all types of cancer affecting people like breast, cervical etc, causes, awareness, diagnosis, psycho-social support and management. Cochrane, Medline, PsycINFO and, web sites of Globocon International Agency for Research on Cancer (IARC) i.e. were meticulously searched for using keywords such as breast, lung, cervical cancer psychosocial support & screening, diagnosis, causes, awareness, prevention among other terms. Foods that contain high oxidants such as ripe banana as well as a banana which help to enhance our immune system. Lycopene has an oxidant which helps in cancer reduction. Fruits and vegetables that are full of vitamins & nutrients are capable of reducing cancer risk. Tomatoes, grapes and olive oil, broccoli, and cabbage among others slow the growth of cancers. Surgery, radiography, cytotoxic chemotherapy and hormone therapy are frequently used in combination.

#### Introduction

All over the globe, studies have shown that the major cause of morbidity these days is cancer. Quite different types of cancer affect both men and women, young and old. Lung cancer is prevalent in men while breast cancer is common among women. Jolly, Williams, Jones, and Muss stated that metastatic breast cancer remains incurable regardless of age and the goals of treatment are to reduce symptoms when present and to provide the patient with the best quality of life for as long as possible [1]. The studies advocated endocrine therapy, chemotherapy and radiation therapy for metastases control. Supportive care that includes psychosocial support and treatment of pain is also a key component of management. The deadliest cancer types are lung and bronchus cancer, colorectal cancer, and pancreatic cancer while the most common type of cancer includes breast cancer, with 290,560 new cases expected in the United States as of 2022, followed by prostate and lung cancers respectively. Hensen and Sawatzky argued that patients diagnosed with lung cancer experience psychological and biological stressors from a delayed cancer diagnosis, symptom management issues, and social stigmatization of their illness [2]. These stressors may cause a physiologic stress response, exacerbate the disease process, and decrease the patient's quality of life. "Colorectal cancers" refers to the combination of colon and rectal cancers. Others include bladder cancer which has risk factors like smoking, genetic mutations, and exposure to certain chemicals; Kidney Cancer; Lymphoma; Ovarian Cancer, and Thyroid Cancer. Cancerous tumours can spread into nearby tissue, glands and other parts of the body; noncancerous are rarely life-threatening; and precancerous. Noncancerous tumours can become cancerous if not treated. Cancerous tumour cells grow uncontrollably and spread to distant sites. Three components of cancer staging are Localized—Cancer is limited to the place where it started, with no sign that it has spread; Regional—Cancer has spread to nearby lymph nodes, tissues, or organs; and Distant—Cancer has spread to distant parts of the body. This paper reviews peoples' experiences with cancer; behavioral aspects of coping with cancer; cancer awareness; causes; psychosocial impacts and support, diagnosis and cancer management.

#### **Cancer Historical Background**

The genesis of this chronic disease occurred in Egypt about 5000 years ago. Cancer develops when the body's normal control mechanism stops working. Old cells do not die but rather grow out of control, forming new, abnormal cells. These extra cells may form a mass of tissue, known as a tumour. Some cancers, such as leukemia, do not form tumours. Acute lymphoblastic leukemia (ALL);

Acute lymphoblastic leukemia (ALL) in children; Acute myeloid leukemia (AML); Adrenal gland tumours; Anal cancer; Bile duct cancer; Bladder cancer; Blood cancers; Bone cancer; Bowel cancer; Brain tumours; Brain tumours in children; Breast cancer; Cancer of unknown primary (CUP); Cancer spread to bone; Cancer spread to brain; Cancer spread to liver; Cancer spread to lung; Carcinoid; Cervical cancer; Children's cancers; Chronic lymphocytic leukemia (CLL); Chronic myeloid leukemia (CML); Colorectal cancer; Ear cancer; Endometrial cancer; Eye cancer; Follicular dendritic cell sarcoma; Gallbladder cancer; Gastric cancer; Gastro esophageal junction cancers; Germ cell tumours; Gestational trophoblastic disease (GTD); Hairy cell leukemia; Head and neck cancer; Hodgkin lymphoma; Juvenile myelomonocytic leukemia (JMML); Kaposi's sarcoma; Kidney cancer; Large bowel and rectal neuroendocrine tumours; Laryngeal cancer; Leukemia; Lenities plastic of the stomach; Liver cancer; Lung cancer; Lung neuroendocrine tumours (NETs); Lymphoma; Malignant schwannoma; Mediastinal germ cell tumours; Melanoma skin cancer; Men's cancer; Merkel cell skin cancer; Mesothelioma; Molar pregnancy; Mouth and oropharyngeal cancer; Myeloma; Nasal and paranasal sinus cancer; Nasopharyngeal cancer; Neuroblastoma; Neuroendocrine tumours; Neuroendocrine tumours of the pancreas; Non-Hodgkin lymphoma; Non-Hodgkin lymphoma in children; Oesophageal cancer; Other conditions; Ovarian cancer; Pancreatic cancer; Penile cancer; Persistent trophoblastic disease and choriocarcinoma; Phaeochromocytoma; Prostate cancer; Pseudomyxoma peritonea; Rare cancer; Rectal cancer; Retinoblastoma; Salivary gland cancer; Secondary cancer; Signet cell cancer; Skin cancer; Small bowel cancer; Small bowel neuroendocrine tumours (NETs): Soft tissue sarcoma: Stomach cancer: Stomach neuroendocrine tumours (NETs); Testicular cancer; Thymus gland tumours; Thyroid cancer; Tongue cancer; Tonsil cancer; Tumours of the adrenal gland; Unknown primary cancer; Uterine cancer; Vaginal cancer; Vulval cancer; Wilms tumour; Womb cancer; Women's cancers (gynecological cancer) are various cancer types.

Carcinomas are the most commonly diagnosed cancers which originate in the skin, lungs, breasts, pancreas, and other organs and glands. Lymphomas are cancers of lymphocytes. Blood cancer is called leukemia. Epithelial cells are the type of cells that becomes cancerous, line the body cavity and cover the body surface. Cancer occurs from environmental exposures to these cells over time. Major reasons healthy individuals may get cancer are genetics and certain environmental or behavioral triggers. The tendency to develop some types of cancer is believed to be inherited, that is, the genes you were born with might carry a predisposition for cancer. Our bodies are constantly producing new cells, some of which have the potential to become cancerous. At any given moment, we may be producing cells that have damaged DNA, but that doesn't mean they're destined to become cancer. Gynecologic cancer implies cancer that begins in a woman's reproductive organs and it's comprised of cervical, ovarian, uterine, vaginal, vulvar, and fallopian tube cancer.

Chronic lymphocytic leukemia; Chronic myeloid leukemia; Pleural mesothelioma; Secondary brain tumours; Secondary breast

cancer; Secondary bone cancer; Secondary liver cancer; Secondary lung cancer; Pancreatic cancer; Mesothelioma; Gallbladder cancer; Esophageal cancer; Liver and intrahepatic bile duct cancer; Lung and bronchial cancer; Pleural cancer; and Acute monocytes leukemia cancer that are not curable cancers but treatable types of cancers. Catalo, Dubey, and Prochaska suggest that people who continue to smoke after a diagnosis of early-stage lung cancer almost double their risk of dying. Five curable cancers include Prostate Cancer; Thyroid Cancer; Testicular Cancer; Melanoma; and Breast Cancer Early Stage [3]. Ciria-Suarez, Jimenez-Fonseca, Palacin-Lois, Antonanzas-Basa, Fernandez-Montes, identified seven stages of different medical processes for breast cancer patients like diagnosis/unmasking stage, surgery/cleaning out, chemotherapy/loss of identity, radiotherapy/transition to normality, follow-up care/the "new" day-to-day, relapse/starting over, and metastatic/time-limited chronic breast cancer [4]. Silent cancers such as breast cancer, ovarian cancer, colorectal cancer, pancreatic cancer and lung cancer are cancers that do not have any noticeable early symptoms. The cancers with the lowest five-year survival estimates are mesothelioma (7.2%), pancreatic cancer (7.3%) and brain cancer (12.8%). The highest five-year survival estimates are seen in patients with testicular cancer (97%), melanoma of the skin (92.3%) and prostate cancer (88%). Cancer like Hodgkin lymphoma, Leukemia, Non-Hodgkin lymphoma, and Multiple myeloma are detected by blood tests. However, studies have shown that stress can cause cancer to grow and spread in mice, but researchers haven't shown a clear link between stress and cancer outcomes in people. Peate recommended that since nurses often act as advocates for women with breast cancer, they should do similar advocacy for men with breast cancer [5].

#### **Signs and Symptoms**

There are over 200 different types of cancer that can cause different signs and symptoms. A certain part of our body is affected by cancer symptoms such as tummy or skin. Weight loss, tiredness or unexplained pain, and lumps are common signs of cancer patients. Some individuals may not experience any signs and symptoms of cancer. Very heavy night sweat, fatigue, unexpected bleeding or bruising; an unusual lump or swelling anywhere on one body a new changes to a mole; skin changes or a sore that won't heal; croaky voice, hoarseness or a cough that won't go away; mouth or tongue ulcer that lasts longer than three weeks; coughing up blood; difficulty swallowing; breathlessness; persistent heartburn; unusual changes to the size, shape, or feel of a breast, or chest, including nipple changes; persistent bloating; appetite loss; a change in bowel habit such as constipation, looser poo or pooing more often; Blood in your poo; unexpected vaginal bleeding including after sex, between periods or after the menopause; Blood in your pee, problems peeing. However, any unusual changes in our bodies should be reported to general practitioners. An early cancer diagnosis can ensure successful treatment. Cancer screening involves examining healthy people for cancer disease signs. Some of the physical and psychosocial problems experienced by women during the early stages of breast cancer continue to be a burden for many years after primary treatment. Patients may continue to experience: Fatigue; Disturbances in body image and self-concept;

Sexual dysfunction; Difficulties with family relationships; Depression; hot flushes, night sweats, feeling tired and having trouble sleeping; and preoccupation with a fear of recurrence once treatment has been completed [6-8].

#### **Causes of Cancer**

A leading cause of morbidity and mortality across the world today is said to be cancer with about 14 million new cases in 2021. It's expected to increase by 70% over the next two decades. Worldwide, one in six deaths is attributable to cancer. Approximately 70% of deaths from cancer happen in low and middle-income countries. 33.3% of cancer deaths are attributed to five leading dietary and behavioral risks viz-a-viz high body mass index, low fruit and vegetable intake, lack of physical activity, tobacco, and alcohol use. Tobacco use is the most important risk factor for cancer and is responsible for 22% of cancer deaths. Cancer affects any part of our body which is also known as malignant tumours and neoplasms. Several causes of male breast cancer have been linked to childhood radiation for benign chest and neck disorders; radiation exposure is also linked to women who develop breast cancer. A major cause of death from cancer is metastases. Alcohol heavy consumption poses threat to our health while occasional drinking does not pose a serious threat to our health. In addition, processed meat associated with colorectal and stomach cancer, sunlight, tobacco, and asbestos cause cancer according to the World Health Organization (WHO). Consumption of alcoholic beverages has a human carcinogen as stated by National Toxicology Program. Sugar is not a carcinogenic (cancer-causing) substance. However, over-consumption of sugar, particularly added sugars in processed beverages and foods, can contribute to obesity which is an important risk factor for cancer. However, no studies have confirmed that consuming sugar makes cancer cells grow faster or causes cancer. A study has also shown that having sleep lower than six hours may enhance one risk to develop colon cancer by about 50%, including lower quality of life, depression, and the inability to perform day-to-day activities. Salted fish have been associated with an increased risk of stomach cancer. Psychosocial factors such as depression, general distress, and low social support have long been theorized to increase cancer risk. However, eggs should be consumed once or twice a week; soft and hard-boiled will be a better option than scrambled or fried. If you have had reproductive cancer or are at high risk for breast, ovarian, and prostate cancer, kindly avoid eggs. Cancer causes severe pains in various ways and such affected individuals feel uncomfortable as he/she dies gradually. Possible changes in consciousness are a sign that death is close for cancer patients such as more sleeping during the day; hard waking from sleep; confusion about time, place, or people; restlessness might pick or pull at bed linen; may talk about things unrelated to the events or people present; and may have more anxiety, restlessness, fear, and loneliness at night. Viruses that can lead to cancer are Hepatitis B Virus (HBV) and Hepatitis C Virus (HCV); Kaposi Sarcoma-Associated Herpesvirus (KSHV); Merkel Cell Polyomavirus(MCV); Human Papilloma Virus (HPV); Human Immunodeficiency Virus Type 1 (HIV-1, or HIV); Human T-Cell Lipotropic Virus Type 1 (HTLV-1); and Epstein-Barr Virus (EBV). Sexually transmitted human papilloma-

virus (HPV) causes cervical cancer, which is the most common viral infection of the reproductive tract. Prevalent among younger age groups due to early sexual activity, multiple sexual partners, and exposure to other sexually transmitted infections such as HIV. At least 13 out of more than 100 types of HPV are cancer-causing. Two types of HPV cause 70% of all cervical cancer. Most sexually active men and women will be infected at some point in their lives with HPV – some may be repeatedly infected. Cervical cancer is a preventable disease. Young women with very early cervical cancer who still desire to have children would have a type of surgery called trachelectomy in which only the cervix is removed. The womb is left in place and when she wants to have a baby the gynecologist would be involved. Also delivery would be by caesarean section. Screening for cervical cancer depends on the age of the woman and the type of screening test done. Women are advised to start screening at 25 to 30 years. Testing for HPV is done every five years or a Pap test every three years between ages 21 to 65 years. However, there is a safe and very effective vaccine that protects against HPV and it has the potential to prevent one-third of all cases of cervical cancer. Binka, Doku, and Awusabo-Asare argued that the quality of life of cervical cancer patients is affected by psychological, social, physical and economic disruption in their lives. Intensive health education through the mass media and community health promotion outreaches were recommended as a way of disseminating adequate knowledge about cervical cancer in Ghana [9]. Two HPV vaccines are certified safe by WHO and are intended for use in girls between the ages of 9 and 13 years. The vaccine produces the highest immune response at this age and it is important to receive the vaccine before exposure to HPV.

Genetics-Cancer syndromes. Physical and chemical agents-Materials. Lifestyle-Alcohol, Diet. Hormones-Infection and inflammation, and parasites. Radiation-Non-ionizing radiation, organ transplantation...Getting too much ultraviolet (UV) radiation from the sun or tanning beds, being overweight, on-the-job exposure to chemicals, some viruses and bacteria, and drinking too much alcohol are leading causes of cancer. Skin cancer prevalent in developed nations like the U.S.A. is the most preventable cancer which is caused by damage from the sun's ultraviolet (UV) radiation. Uncontrolled bleeding, cardiac arrest or respiratory failure due to a large blood clot happen—but contrary to popular belief, sudden and catastrophic death in cancer is rare. About 67% of cancer survivors have survived 5 or more years after diagnosis. About 18% of cancer survivors have survived 20 or more years after diagnosis. 64% of survivors are age 65 or older. A complete blood count (CBC) is used to diagnose a cancer patient or monitor how cancer or its treatment is affecting one body e.g. someone undergoing chemotherapy.

Growth hormones having too much body fat can cause levels of growth hormones to rise, which tells cells to divide more often. This simply raises the possibility that cancer cells will develop. Sex hormones-after menopause, fat cells produce the hormone estrogens. This can make cells in the breast and womb divide more often which increases the risk of cancer developing. Inflammation-when there are more fat cells in the body, immune cells go to

the area, possibly to remove dead fat cells. This can lead to inflammation, which causes cells to divide more quickly, and over time, this can increase the risk of cancer.

Being overweight and obesity causes 13 different types of cancer which include breast and bowel (two of the most common cancer types); Pancreatic, esophageal and gallbladder (three of the hardest to treat cancers); Womb and ovarian; Kidney, liver and upper stomach; myeloma (a type of blood cancer); Meningioma (a type of brain tumour). A person's risk of cancer depends on lots of different factors which include things you can't change like your age and genes. Smoking, obesity and UV rays are factors that affect our cancer risk. One should start losing weight if one's BMI is above 25. For most adults a BMI of under 18.5 means they are underweight; 18.5 to 24.9 means they are a healthy weight; 25 to 29.9 means they are overweight; 30 or over means they are obese. Having a BMI higher than 25 increases the risk of 13 types of cancer.

#### **Cancer Prevalent**

The creation of abnormal cells that grow beyond their usual boundaries, invade all parts of the body and spread to other organs is a feature of cancer. Cancer often refers to the development of abnormal cells that divide uncontrollably and can infiltrate and destroy normal body tissue. Cancer is caused by changes in the DNA within cells. However, it has been revealed that 30% of cancers can be prevented through physical exercise, healthy diets, smoking cessation, and reduction in alcohol intake.

# **Cancer Complications**

Cancer and its treatment can cause numerous complications; pain though not all cancer is painful. Chemical imbalances might include excessive thirst, frequent urination, constipation, and confusion; Brain and nervous system problems implies cancer can press on nearby nerves and cause pain and loss of function in one part of our body; unusual immune system reactions to cancer means our body's immune system may react to the presence of cancer by attacking healthy cells; cancer that spreads as it advances, its' spread to either part of the body; cancer that returns-cancer survivors have a risk of cancer recurrence. However, medications and other approaches can effectively lessen the pain. In addition, periodic scans and examinations in the months after treatment can avert cancer recurrence.

# **Cancer Growth Stages**

Stage 0: The cancer is where it started (in situ) and hasn't spread. Stage I: The cancer is localized to a midget area and hasn't spread to other tissues.

Stage II: Cancer has grown, but it hasn't spread.

Stage III: Cancer has grown larger and has possibly spread to lymph nodes.

Stage IV: Cancer has spread to other organs or areas of your body. The last stage of cancer cannot be cured and leads to death. It may be also called advanced or metastatic cancer as well as terminal cancer.

#### **Cancer Prevention**

Between 30-50% of cancers are currently being prevented. This can be accomplished by avoiding risk factors and implementing existing evidence-based prevention strategies. The cancer burden can also be reduced through early detection and management of patients who develop cancer. Many cancers have a high chance of being cured if diagnosed early and well treated adequately. Modifying key risk factors can significantly reduce the burden of cancer. These risk factors include tobacco use viz-a-viz cigarettes and smokeless tobacco; being overweight; unhealthy diet with low fruit and vegetable intake; lack of physical activity; alcohol use; sexually transmitted HPV infection; infection by hepatitis or other carcinogenic infections; ionizing and ultraviolet radiation; urban air pollution; and indoor smoke from household use of solid fuels. However, tobacco use is the single most important risk factor for cancer and is responsible for approximately 22% of cancer-related deaths globally. To prevent cancer, people may increase avoidance of the risk factors listed above; control occupational hazards; reduce exposure to ultraviolet radiation; reduce exposure to ionizing radiation (occupational or medical diagnostic imaging); and vaccination against these HPV and hepatitis B viruses could prevent 1 million cancer cases each year. However, detecting cancer early through screening can ensure effective and less expensive treatment, ensure a greater probability of survival, and less morbidity. Awareness and accessing care, clinical evaluation, diagnosis and staging, and access to treatment essentials for cancer patients are ways of averting cancer. Examples of screening methods are visual inspection with acetic acid (VIA) for cervical cancer in low-income settings; HPV testing for cervical cancer; PAP cytology test for cervical cancer in middle-and high-income settings; and mammography screening for breast cancer in settings with strong or relatively strong health systems. Yang, Liu, & Wang (2022) cancer has become a leading cause of death and aroused the cancer scare. A Difference-in-Difference model estimated by Cox proportional hazard estimation was applied to evaluate the effects of breast and cervical cancer screening using data from the Known County Cancer Registry between the years 2009 and 2013. Based on the case study in a county in central China, this study found that the screening program reduced the risk of death, but found the lion's share of the benefit has been mainly due to cervical cancer screening rather than breast cancer screening, which may be related to the difference between early detection screening and preventive screening. The study suggests sufficient funding and better education on related cancer knowledge will be meaningful measures for the prevention and treatment of breast and cervical cancer. Blood tests like complete blood count and tumour markers detect Hodgkin lymphoma; Leukemia; Non-Hodgkin lymphoma; and Multiple myeloma. The best vitamins for cancer patients include Antioxidant supplements such as coenzyme Q10, selenium and vitamins A, C and E can assist to prevent cell damage. Things to do to reduce the risk of having cancer include not smoking and keeping a healthy weight, and adding these anti-cancer foods to one diet as not all cancers can be prevented. However, a minimum of 5 types of fruits and vegetables together with the right amount of food to stay healthy are recommended for consumption daily by the America Cancer Society. Fruits and vegetables are full of vitamins and nutrients

that are thought to reduce the risk of some types of cancer. Foods that combat cancer is mostly plant-based foods like fruits and vegetables, whole grains, legumes and nuts often offered by the Mediterranean diet. The diets are traditional cuisines of Spain, France, Monaco, Italy, Slovenia, Croatia, Bosnia and Herzegovina, Montenegro, Albania, Greece, Turkey and other countries that border the Mediterranean Sea. The cancer-fighting foods are olive oil over butter and fish instead of red meat. Berries contain high fiber which helps to halt a naturally occurring process in the body that creates free radicals that can damage your cells. Examples of these healing fruits include blueberries, blackberries, and strawberries which contain powerful antioxidants and compounds that help keep cancer from spreading. Other foods are Greek yoghurt, Extra virgin olive, Leafy greens, Beans like chickpeas, Eggplant, Eating fish and seafood, consuming poultry, eggs, cheese and yoghurt in moderation and limiting sweets and red meat for special occasions. Also, people should consume healthy fats like olive oil, and use herbs and spices instead of salt. Green tea is a powerful antioxidant and may help prevent liver, breast, pancreatic, lung, esophageal, and skin cancer. It's proven that the chemical found in green tea, epigallocatechin-3 gallate, acts against (an enzyme crucial for cancer growth). Lycopene which is present in tomatoes is a cancer-fighting food associated with protection against certain cancers like prostate and lung cancer. Red grapes have seeds filled with super-antioxidant activing. In addition, red wine and red grape juice which has cancer-fighting chemicals offer important protection against certain types of cancer, heart disease, and other chronic degenerative diseases. Garlic and onions should form part of our diets and be taken abundantly. It has been proven that garlic and onions can block the formation of nitrosamines, powerful carcinogens that target several sites in the body, usually the colon, liver, and breasts. Persons who consume more garlic are less likely to develop various kinds of cancer most especially in digestive organs like the esophagus, stomach, and colon. Ingredients in the pungent bulbs may prevent cancer cells from multiplying. The more pungent the garlic or onion, the more abundant the chemically active sulfur compounds that prevent cancer. Eat fish, Fatty fish like salmon, tuna, and herring which contain omega-3 fatty acids, a type of fatty acid associated with prostate cancer reduction risk. Eating flaxseed can give your body omega-3s. Broccoli, cabbage, and cauliflower in cruciferous vegetables which are cancer-fighting foods. Green Tea leaves (Camellia sinensis) contain antioxidants called catechins, which help to prevent cancer in a variety of ways, including keeping free radicals from damaging cells. Catechins in tea can shrink tumours and reduce tumour cell growth. Whole Grains contain many components that might lower your risk of colorectal cancer, including fiber and antioxidants. Oatmeal, barley, brown rice, whole-wheat bread and pasta are all examples of whole grains. Turmeric, Shutter stock, and orange-colored spice, a staple in Indian curries, contain an ingredient called curcumin useful in reducing cancer risk and can slow the spread of cancer or shrink tumours in some animals. Leafy green vegetables like spinach and lettuce are good sources of the antioxidants beta-carotene and lutein. These nutrients are found in vegetables that are more traditionally eaten cooked, like collard greens, mustard greens, and kale. Some beans, particularly pinto and red kidney beans, contain

antioxidants as well as fiber to help in reducing your risk of cancer.

# **Dietary Foods for Preventing Cancer**

According to a 20-year trial conducted by researchers from the University of Leeds, bananas contain starch which could reduce some cancers by more than 50 per cent. Also, certain fruits, vegetables, nuts, beans, oats, whole grains, spices and teas provide unique benefits capable of reducing the risks of certain cancers which not found in other foods but could slow the growth of cancer and recurrence. Moreover, Fish oil contains omega-3 fatty acid, which helps the body absorb nutrients and fend off inflammation; Flax seed; Ginger; Green Tea; Lycopene; Melatonin; Selenium; and Turmeric are good for preventing cancer. Ripe plantain has high antioxidants which help to boost our immune system and protect our body against free radical damage that's associated with ageing, heart disease, and even some types of cancer. Studies have shown that avocados are high in healthy fats, vitamin C, vitamin E, vitamin K, potassium and fiber which makes them rich in antioxidants and nutrients that are necessary for a healthy diet and have been shown to have anti-carcinogenic properties. Watermelon has more lycopene than any other fresh fruit or vegetable. Lycopene is an antioxidant linked to decreased risk of cancer, heart disease and age-related eye disorders. Also, cancer can be fought naturally by eating plenty of fruits and vegetables which are full of vitamins and nutrients capable of reducing the risk of some types of cancer; Sipping green tea throughout your day; Eating more tomatoes; Using olive oil in cooking; Snack on grapes; Use garlic and onions abundantly. Several studies have revealed that eating one ounce of peanuts, certain tree nuts (walnuts, almonds, pistachios) and/or seeds most days may help reduce the risk of certain cancers, including colorectal, endometrial and pancreatic cancer. Broccoli, cabbage, collard greens, kale, cauliflower and Brussels sprouts are all cruciferous vegetables which contain powerful phytochemicals, including carotenoids, indoles and glucosinolates and is thiocyanates, which slow the growth of many cancers.

Supplements use in fighting cancer cells are some specific herbal and dietary supplements which could assist the effects of cancer treatment and even protect noncancerous cells in some cases. These include Garlic, Ginkgo, Echinacea, Ginseng, St. John's worth, and Kava. Chemotherapy can weaken cancer patients' bones. A calcium supplement with vitamin D, which helps our body absorb calcium, may protect our bones from changes due to treatment. A regular multivitamin intake may help you get essential vitamins and minerals to improve your overall health. In addition, cucumbers are rich in flavonoids that might help to fight cancer, most importantly, the dietary flavonoid fisting found in cucumbers is likely to slow the progression of prostate cancer. 100 per cent vegetable juices; 100 per cent fruit juices (No Sugar-Added, In Small Quantities); Herbal Teas and Infusions; and Red Wine (In Moderation). Citrus fruit like grapefruits and oranges are useful fruits in preventing certain cancers. For instance, a study carried out in Japan revealed that persons who had citrus fruits or juices 3-4 days per week were less likely to get cancer than those individuals who had them 2 or fewer days a week. In some studies, it was revealed that honey has potential use in cancer therapy on the human breast,

cervical, oral and osteosarcoma cancer cell lines using Malaysian jungle Tualang honey showed significant anticancer activity. Limit alcohol consumption; Limit "fast" foods; Limit red and processed meat; Limit sugar-sweetened drinks. The vitamin C in apples also acts as an antioxidant to support immune function and fight cancer cell growth. Vitamin D which serves as an anticancer is highly beneficial in causing tumour regression and inhibiting tumour growth. Exercise, eating a balanced diet, maintaining a healthy weight, getting good sleep, reducing stress, avoiding tobacco, protecting one from the sun; getting vaccinated; avoiding risky behaviors; and getting regular medical care among others are the best ways to survive cancer.

# **Ways of Improving Cancer Prevention**

The government needs to invest more in cancer care, especially in developing and underdeveloped countries of the world. Incorporating care within the health insurance scheme is another measure that can be used to reduce the costs for patients in cancer treatment thereby making things lots easier for cancer patients to manage the chronic ailment. The government at various levels should invest in cancer prevention and enlightenment programmers. Specific programmers that address cancer awareness and prevention including the provision of vaccines are required.

# **Cancer Theory**

Two-Hit theory of cancer causation. Normal cells have two undamaged chromosomes one inherited from our mother and one from our father. These chromosomes contain thousands of genes. People with a hereditary susceptibility to cancer inherit a damaged gene on one chromosome, so their first 'hit' or mutation, occurs at conception. Other people may receive the first hit at a later stage, before or after birth.

In either case, if a cell receives damage to the same gene on the second chromosome, a cell can produce cancer. The classic theory of cancer proposes that cancer develops as a result of a defect in a tumour-suppressor gene. This leads to a lack of normally functioning tumour-inhibitory proteins, with simultaneous activation of oncogenes that stimulate cells to proliferate. The three-stage theory of carcinogenesis is one of the most common explanations for the development of cancer. This theory divides cancer development into three stages initiation, promotion, and progression. Health psychologists often assist individuals to work through the psychological and emotional challenges associated with illnesses such as cancer. Clinical psychologists provide psychological treatment and support for patients, their careers and families who may be experiencing distress from anxiety, panic, phobias, depression and other adjustment issues related to living with cancer. A cancer diagnosis can affect patients' emotional health, families, and caregivers. Common feelings during this life-changing experience include anxiety, distress, and depression. Roles at home, school, and work can be affected. It's important to recognize these changes and get help when needed. Talk therapy is often recommended to people coping with the effects of cancer. Cognitive behavioral therapy has success in cancer patients which helps people challenge negative thoughts and change the patterns of thinking that lead to them.

# **Treatment and Life Afterwards For Cancer**

Kirshbaum cancer treatments, such as surgery, radiotherapy, cytotoxic chemotherapy and hormone therapy are frequently used in combination or succession [10]. Each cancer needs to be treated differently. Current cancer-treating vaccines are BCG live vaccine which can treat early-stage bladder cancer; the Sipuleucel-T vaccine used in treating prostate cancer; and the Talimogene laherparepvec vaccine used in treating melanoma. Chemotherapy works against cancer by killing fast-growing cancer cells. Types of cancer treatment that use drugs to kill cancer cells. Chemotherapy, cancer drugs, surgery for cancer, radiotherapy, hormone therapy which block the number of hormones in the body to stop the growth of cancer, and stem cell and bone marrow transplants are treatments for some types of cancer including leukemia, lymphoma and melanoma, immunotherapies using our immune system to fight cancer, coping with cancer, coping physically, mental health and cancer, coping practically, family, friends and caregivers. Jiwa, Saunders, Thompson, Rosenwax, Sargant argue that greater integration of care through a multidisciplinary team of professionals, peer support groups and primary health practitioners functioning within a care hub could offer better practical and psychosocial supportive care for patients and their families [11]. Parry Uncertainty is a central theme in cancer survivorship and coping literature. The findings suggest that although uncertainty can be a source of distress, it can also be a catalyst for growth, a deepened appreciation for life, greater awareness of life's purpose, development of confidence and resilience, and optimism [12].

# **Four Pillars of Cancer Treatment**

Traditional cancer treatment options can be classified into distinct pillars: surgery, chemotherapy, radiation therapy often called External Radionuclide Therapy, or ERT and; immunotherapy. Surgery is an operation where doctors cut out tissue with cancer cells. Chemotherapy refers to special medicines that shrink or kill cancer cells. Drugs used to combat cancer of the prostate are those containing estrogen which may also be a cause of breast cancer. Radiation therapy uses high-energy rays (similar to X-rays) to kill cancer cells. Hormone therapy means blocking cancer cells from getting the hormones they need to grow. Other therapies are targeted Therapy; and Bone Marrow Transplant. West and Brown suggest that surgical intervention be used for the majority of women with cancer. Therefore, the majority of men with breast cancer would expect to undergo some form of surgery. Regular physical exercise can be promoted safely even for those who have completed high-dose chemotherapy and bone marrow transplants provided that supervision and monitoring are made available in a structured programmer.

Research conducted by GLOBOCAN in 2020 reveals that about 9.6 million die from cancer each year. Cancer has reached almost epidemic proportions in our modern civilization, going by its cause of death in Africa. The psychological effects of having cancer can be devastating. European and Asian doctors have traditionally been using a natural holistic approach to cure Cancer, with resounding success and with no side effects. Propolis is a natural antioxidant that suppresses and kills tumours and cancerous cells

vigorously, improves immunity, promotes tissue regeneration (anti-infective), lowers blood pressure, lowering blood glucose. (Hypoglycemic effect of flavonoids is the main factor preventing complications), and other functions. Lecithin called egg yolk, protein, and vitamins tied are the most important constituents of the cell membrane. This all-natural therapy does not have any side effects. They offer an effective and guaranteed solution.

#### Conclusion/Recommendations

In conclusion, the study revealed that lung and bronchus cancer, colorectal cancer, and pancreatic cancer as the deadliest cancer while breast cancer remains the most common type of cancer, followed by prostate and lung cancers. Identified three components of cancer such as localized, regional, and distant. Cancer is gotten by healthy people through genetics and environmental or behavioral triggers. Prostate cancer, thyroid cancer, testicular cancer, melanoma, breast cancer, ovarian cancer, colorectal cancer, pancreatic cancer and lung cancer. Weight loss, tiredness or unexplained pain, and lumps are signs of cancer in patients. Five leading dietary and behavioral risks such as high body mass index, low fruit and vegetable intake, lack of physical activity, tobacco, and alcohol use cause 1/3 of cancer deaths globally. Reduction in quality sleep hours may cause colon cancer. Sexually transmitted human papillomavirus (HPV) causes cervical cancer. Whole grains, Green tea leaves, and Onions among others help to prevent cancer in several ways. Approximately one-third of all cancers can be prevented. Health promotion interventions that advocate for HPV vaccination, improved access to physical activity and a healthy diet can ensure cancer risk reduction. Some of the most common cancer types, such as breast cancer, cervical cancer, oral cancer, and colorectal cancer have high cure rates when detected early and treated according to best practices [13,14].

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