

**AWARENESS ON LIFESTYLE DISEASES
AMONG PROSPECTIVE TEACHERS AT
SECONDARY LEVEL**

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DECLARATION

I, **AMRUTHA RAJ.**, do hereby declare that this dissertation entitled, **AWARENESS ON LIFESTYLE DISEASES AMONG PROSPECTIVE TEACHERS AT SECONDARY LEVEL** has not been submitted by me for the award of any Degree, Diploma, Title or Recognition before.

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CERTIFICATE

I, **Mr. ABDUL BASHEER.U.**, do hereby certify that the dissertation entitled, **AWARENESS ON LIFESTYLE DISEASES AMONG PROSPECTIVE TEACHERS AT SECONDARY LEVEL** is a record of bonafide study and research carried out by **MS. AMRUTHA RAJ**, under my supervision and guidance and has not been submitted by her for the award of a Degree, Diploma, Title or Recognition before.

Farook Training College
. . 2014

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INTRODUCTION

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➤ *Organization of the Report*

Human being has been hunting for nearly five million years on this planet for food, nuts, fruits and vegetables. Until 20th century vigorous physical activity was an integral part of our daily life. But the emergence of industrialization and thereby globalization have reduced physical activity. Both in developed and the third world, standard of living has gone extremely high. There was an unprecedented development in the science and technology in this era of globalization lifestyle of man has changed a lot. If the main cause of mortality were communicable diseases on 19th century, in 21st century non-communicable diseases or Lifestyle Diseases are major dangers of human health.

Lifestyle Diseases are diseases associated with the way of person or group of person lives. Changes in diet, bad habits, physical inactivity, changes in life style and of course, lack of awareness or rather ignorance are the leading cause of this diseases. The four main groups of Life style diseases are:

- Cardiovascular diseases (CVD's) Eg: Heart attack, strokes etc.
- Cancers Eg: Lung cancer, breast cancer etc.
- Chronic respiratory diseases Eg: chronic pulmonary diseases.
- Diabetes (type II)

Lifestyle Diseases are the biggest global killers today. Of late, the situation in India is quite alarming as the complexity of the lifestyle Diseases is shooting up rapidly. More over, in the near future India is going to be one of the most lifestyle Diseases –affected nations. The rapid rate of urbanisation, changes in food habits, increased stress levels and a sedentary lifestyle coupled with increased smoking habit and alcoholic consumption more and more Indians, especially Keralites are being struck by the so-called Lifestyle Diseases. Famous news paper The Hindu had published these facts such as “India is projected to experience more deaths from Lifestyle Diseases such as diabetes and cancer than any other country over the next decade” Kerala has achieved good health indicators compared to other Indian states. But the rate of Lifestyle Diseases is very high in our state. In Kerala more than 50% death occurring in the age group between 30 & 60. With 20% adult males and 19% adult females being diabetic, Kerala is considered to be the diabetic capital of India.

In this industrialised and globally developed century the life style disease has become a crucial problem both in developed, developing and under developed countries. Apart from the contagious diseases these Life style Diseases are mostly self inflicted. So by right exercise and dietary change the life style diseases would be prevented to a great extend. Drastic

changes in the life style as well as lack of awareness or rather misconceptions are the main causes of rapid spreading of Life style Diseases. The upcoming generation should strictly aware of the cause and effect of Life style Diseases, the teachers who has the pioneer responsibility or the prominent role in moulding next generation. It is high time for giving an extensive and intensive awareness programmes to the prospective teachers.

Need and Significance of the study

The most challenging problem in this revolutionised era is the occurrence of Life style Diseases. A recent report published in the popular daily Times of India says “The Life style Diseases, that were usually seen only in urbanpopulance have now spread on the rural and tribal.” The World Health Organisation reported “The estimated deaths due to life style diseases were double than those of communicable diseases in India.” All these reports indicates that there is an urgent need of awareness programmes on the misconception among the public about the causes and controlling measures of the Life style Diseases.

Globally non-communicable diseases are the major cause of mortality and morbidity. The death by the cause of Life style Diseases in both developed and underdeveloped countries are increasing at an alarming rate. A joint study conducted by All India Institute of Medical Science and Max

Hospital shows the incidence of hyper tension, obesity and heart disease is in a serious stage and showing the death toll is at close to the maximum. Almost all institutional studies and reports warn that it is the time for taking necessary steps to minimise the occurrence of Life style Diseases. For ensuring a continued state of a high level of health for every human being it is necessary to not only to provide adequate and suitable facilities for prompt detection of illness, treatment, rehabilitation etc. but also to arrange for suitable preventive care and promotive facilities.

As the Life style Diseases are associated with the way of life, it is an endless function in the society. The foundation and the prosperity of a nation depends on a healthy community. Unless we wake up and take appropriate measures in the right direction, it is not possible to make the young generation aware of the cause and effect of life style diseases. If a sufficient hygienic awareness and adequate health education are not introduced in the formal education curriculum urgently, our blooming generation would be ignorant and would become the victims of the existing or forth coming new Lifestyle Disease. Many of the diseases can be avoided by giving a proper, intensive and extensive health education to the young generation. Lack of knowledge of the proper health education or the non observances of health practices can be seen in any community whether

educated, illiterate or literate, rich or poor and so on. Hence a deep well-planned, scientific and regular training to the prospective teachers at secondary level is inevitable as they are the prominent facet in moulding future generation with out a lifestyle Diseases. Here comes the prominent role of the prospective teachers to make them understand.

While reviewing the literature related with present study the investigator found that most of the studies focused on the area of awareness of adolescents and adults and also the risk factor associated with life style diseases. Sanderson (2008) carried out a study on Awareness on life style diseases risk factors for cancer and heart diseases among adults in UK. Results of this study revealed that public awareness of the impact of life style diseases is very low. Mane and Karwa (2011) conducted a joint study on risk factors for life style diseases among adolescents in western India. Sugathan (2008) carried out a study on 'Behavioural risk factors for non-communicable diseases among adults in Kerala'. These show that no research has ever been conducted on the prospective teachers. Considering all these facts the investigator intent to select the present study.

Statement of the Problem

The present study is entitled as **Awareness on Life style Diseases among prospective teachers at Secondary Level.**

Definition of Key terms

The key terms in the statement of the problem are explained below so as to get operational definition.

Awareness on Life style Diseases

Awareness

Good (1959) defined Awareness as “The state of being aware, conscious of a situation or object, without direct attention to it or definite knowledge of its nature.”

Life style Diseases

London and Glasgow (2009) defines life style diseases as “A disease that potentially can be prevented by changes in diet, environment and life style, such as heart disease, stroke, obesity and osteoporosis”.

Awareness on Life style Diseases

In the present study awareness on Life style Diseases means the knowledge and understanding of life style diseases, its causes, related risk factors, and preventive measures.

Prospective teachers

Prospective teachers are the students undergoing training to be a professional teacher. In the present study prospective teachers is operationally defined as student teachers who undergo training at secondary level.

Variables

- Awareness on Lifestyle Diseases

- Classificatory variables
 - Gender

 - Locale of Residence

 - Socio- economic status

 - Subject of study

Objectives

The objectives of the present study are presented below.

- (i) To find out the extent of awareness on Life style Diseases among prospective teachers at secondary level in the total sample and in the relevant sub samples based on
 - Gender

 - Locale of Residence

 - Socio-economic status

- Subject of study
- (ii) To find out whether there exists significant difference in the mean scores of Awareness on Life style Diseases and its components among the relevant sub samples based on
- Gender
 - Locale of Residence
 - Socio-economic status
 - Subject of study

Hypothesis

The hypothesis formulated for the study is,

- (i) There exists significant difference in the mean scores of Awareness on Life style Diseases and its components among the relevant sub samples based on
- Gender
 - Locale of Residence
 - Socio-economic status
 - Subject of study

Methodology

Methodology deals with the description of sample, tool, statistical techniques used for the study.

Sample

The population of the study is prospective teachers at Secondary Level under Calicut University, and hence the study was conducted on a sample of 500 B.Ed. students drawn from different Teacher Education institution under Calicut University. The samples were selected by stratified sampling technique giving due representation to gender, locale of Residence, socio economic status and subject of study.

Tools

The awareness on Life style Diseases among prospective teachers at secondary level was measured by using Awareness test on Lifestyle Diseases. This was constructed by the investigator with the help of the supervising teacher. This test will be consisted of 57 multiple choice of test items with four options under four dimensions. Another tool used in this study was Socio-economic status scale to measure socio –economic status of prospective teachers.

Statistical techniques

Statistical techniques proposed to be used are

- Preliminary analysis
- Percentiles
- Test of significance of difference between means for large independent sample
- One-way ANOVA

Scope and Limitation of the Study

The present study is intended to find out the extent of Awareness on Lifestyle Diseases among prospective teachers at secondary level in the total sample and in the relevant sub samples based on gender, locale of residence, socio economic status and subject of study. The investigator hopes that this study will help to develop awareness on Lifestyle Diseases among prospective teachers. This will help them to adopt suitable strategies to enhance awareness on Lifestyle Diseases in the future generation. The investigator also hopes that the findings of the study will help the educational institutions to organise various programs for improving awareness on Lifestyle Diseases.

The investigator wishes that based on the findings of the study, concerned authorities will include the essential concepts of Lifestyle Diseases in the curriculum of teacher education considering the needs and importance of Lifestyle Diseases.

Even though considerable efforts have been made to make the study as successful as possible the investigator could identify certain limitations some of these are

- The study was conducted only on prospective teachers at secondary level.
- Sample selected for the study is not a state wide one. The study is confined to prospective teachers at secondary level under Calicut University.
- Limitations of time, economy were obstacles of selecting sub samples.
- Religion is not considered as a sub sample

Organisation of Report

Report has been presented in five chapters.

Chapter 1 represents a brief introduction to the problem and its significance, statement of the problem, definition of key terms, objectives, hypothesis, methodology, scope and limitation of the study.

Chapter 2 describes a conceptual frame work for the study and a survey of the studies reviewed in relation to the present study.

Chapter3 gives an account of the methodology used in detail for the present study. It contains objectives, hypothesis, tools employed for the data collection, sample drawn, data collection of procedure, scoring and statistical techniques.

Chapter 4 describes the analysis part of the study as per the objectives of the study.

Chapter 5 presents summary of the study, major findings, educational implications of the study and suggestions for further research in this area.

REVIEW OF RELATED LITERATURE

-
- *Conceptual overview*
 - *Review of related studies*
 - *Conclusion*
-

Review of related literature is a written summary of journals, articles, books and other documents that describes the past and present information on the topic of the study.

(Croswell, 2011)

Review of related literature of the study is an important aspect of the any investigation. It is necessary for the researcher to make a thorough survey of related studies before planning and carrying out of the study. A proper study of the review of related literature would enable the investigator to locate and go deep in to the problem. Familiar with what is known and what is still un known and untested helps the researcher to eliminate duplication of what has been done and provide useful hypothesis and helpful suggestions for significant investigation. In order to get an insight in to the theoretical background of the subject of the study, related literature was thoroughly reviewed. The result of the review is summarized in this chapter. For convenience this has been attempted in to two sections.

- Conceptual overview
- Review of related studies

Conceptual Overview

Lifestyle Diseases are the biggest global killers today. It has endless function in the society. These are diseases associated with the way of person or group of person lives. The risk of developing these diseases depends on lot of factors including the type of work, work environment, unhealthy food habit and increased stress levels etc.

In the present Indian scenario, the situation is quite alarming. World health organisation (W H O) has identified India as one of the nations that is going to have most of the lifestyle disorders in the near future. Already considered diabetes capital of the world, India now appears headed towards gaining another dubious distinction of becoming the life style related diseases capital as well.

Lifestyle Diseases account for a majority of the diseases that are common around the world today. Some of the common lifestyle diseases are

Diabetes, Hyper tension, Arteriosclerosis, Obesity, Asthma, Stroke, Cancer, Stress, Depression, Kidney Diseases, Liver cirrhosis, Cholesterol

Diabetes

Diabetes mellitus is a nutritional disorder, characterised by an elevated level of blood glucose and by the excretion of excess glucose in the urine. This may happen because of two reasons.

- Pancreas does not produce enough insulin to regulate the blood sugar levels.
- The body cannot effectively utilise the insulin produced due to the insulin resistance.

The condition of excess sugar level in the blood is termed as Hyperglycaemia is a common effect of uncontrolled diabetes. This can lead to serious damage to vital organs like eyes, kidneys etc, and even routine functioning of the body. The major causes of diabetes are obesity, high blood pressure, unhealthy diet, lack of exercise, stress, heredity, irregular lifestyle, aging etc.

There are four major types of diabetes mellitus. Type-I Diabetes is also called insulin dependent diabetes. Type-II Diabetes or Non insulin dependent diabetes, Type-III Diabetes or gestational diabetes. Type -IV includes other types of diabetes that were linked to diseases of the pancreas, hormonal changes and side effects of drugs or genetic defects. The warning signs of

diabetes were increased urination, weight loss, fatigue, blurred vision, Unhealthy wounds, itching of the skin, and genitals and developing raging thirst. The most commonly used screening tests are the determination of the fasting blood glucose level and the two hour post- prandial, that is after a meal. The normal fasting blood sugar content is 80 to 120 mg/ 100 ml of blood and this can go up to level of 180 mg/100 ml of blood two hours after meals. Anything above these norms can be termed diabetic levels. Diastrix method, Benedict test, Blood sugar test and Test for acetone are the tests commonly used to diagnose diabetes.

Cancer

Cancer is a disease in which certain groups of cells start multiplying with out control and destroy healthy tissues. Cancer is known as killer disease, because so far no effective treatment has been discovered for it. Tumours are of two types malignant and benign. Malignant tumours are cancerous while benign tumours are not.

Cancer cells are can grow in any part of our body. More than hundred types of cancer are known to attack human beings. Common among them are skin cancer, lung cancer, uterus cancer, lymph cancer, mouth cancer, throat cancer and breast cancer. Symptoms of cancer depend on the type and location of the cancer. The following symptoms are occur with most type

of cancers fatigue, fever, loss of appetite ,night sweats, weight loss etc. Lung cancer can cause coughing, shortness of breath or chest pain. Colon cancer causes diarrhoea constipation, and blood in the stool. There are many causes of cancer including benzene and other chemicals, excess alcohol consumption, excessive sun light exposure, obesity and genetic problems etc.

In allopathy there are different modes of treatment for cancer surgery, radio therapy and chemo therapy. If cancer is discovered at an early stage that is before a metasis occur, a surgeon can remove the tumour and cure the patient. In most of the cases, biopsy performed to find out the tumour is malignant or not. Another treatment involves the use of x rays or gamma rays produced by radioactive substance like radium or radio active cobalt. The third method is by using drugs which is called chemotherapy. Cancer screenings, such as mammography and breast examination for breast cancer and colonoscopy for colon cancer, Pap smear test for uterus cancer may helps to catch these cancers at early stage. Reduce the risk of getting a cancerous tumour by eating a healthy diet, limiting alcohol, regular exercise, avoid smoking, tobacco use, reducing ultra violet ray exposure.

Arteriosclerosis

Arteriosclerosis is a most common and serious vascular diseases. It result in the lost of elasticity of blood vessels, with a narrowing of smaller arteries, which interferes with the circulation of the blood. These changes may gradually extend to capillaries and veins. Arteriosclerosis is more frequent in men than women, especially in younger age group. It usually has no symptoms until middle or older age. But as narrowing become severe, they choke off blood flow and can cause pain. Blockage can also suddenly rupture, causing blood to clot inside an artery at the site of the rupture. The most important causes of arteriosclerosis are excessive intake of cholesterol rich food. Hardening of arteries may caused by diseases such as high blood pressure, obesity, diabetes, rheumatism, malaria and syphilis. Stroke, paralysis, heart failure are some effects of atherosclerosis. The plaques of arteries cause the three main kinds of cardiovascular disease coronary artery disease, cerebrovascular disease, and peripheral disease. The test commonly used to diagnose these diseases is blood tests doppler ultrasound, electro cardiogram etc. The surgical procedures are angioplasty, by pass surgery, thrombolytic surgery. Lifestyle changes can help to prevent or slow the progression of arteriosclerosis, for example avoid smoking, regular exercise, managing stress etc.

Obesity

Obesity may be described as a bodily condition characterised by excessive storage of fat in the adipose tissues. Obesity also occurs at any stage in either sex. The chief cause of obesity is over eating, excess alcohol consumption, sedentary habits, lack of appropriate physical activity. Sometimes it may also be the result of disturbances of the thyroid or pituitary glands. It may also occur as a side effect of consumption of medicines such as antidepressants, corticosteroids, and anti – epileptic drugs. Other factors include quitting smoking suddenly, pregnancy and aging.

Obesity is a serious health hazard as the extra fat puts a strain on the heart. Kidneys and liver as well as the hips, knees and ankles which ultimately shorten the life span. Over weight persons are susceptible to many diseases like coronary thrombosis, heart failure, high blood pressure, diabetes, depression, high cholesterol and gall bladder disorders. The most basic method to determine obesity is body mass index or B.M.I. The world health organisation regards B M I of less than 18.5 as under weight, while a B M I greater than 25 is considered over weight and above 30 is considered obese. The basic principles of management of obesity include the following modifying diet, increasing appropriate physical activity and exercise, reducing time spent in sedentary activities like watching television, modifying diet.

Asthma

Asthma is a chronic lung disease that inflames and narrows the air ways. Asthma causes recurring period of wheezing, chest tightness, shortness of breath and coughing. The coughing often occurs at night or early in the morning. Asthma affects people of all ages, but it most often starts during child hood. Asthma is thought to be caused by a combination of genetic and environmental factors. Its diagnosis is usually based on the pattern of symptoms, response to therapy, over time and spirometry.

Asthma triggers are different from person to person and can include cold air, airborne allergens, physical activity, strong emotions, stress and menstrual cycle in some women. A number of factors that increases the chances of developing asthma. These include over weight, smoking, bacterial infections etc.

Asthma is clinically classified according to the frequency of symptoms, forced expiratory volume in one second (FEV1) and peak expiratory flow rate. Asthma may also be classified atopic (extrinsic) or non atopic (intrinsic) based on whether symptoms are precipitated by allergens atopic or not atopic. While asthma is classified based on severity, at the moment there is no clear method for classifying different subgroups of asthma beyond this system. The most effective treatment for asthma is identifying triggers.

Avoidance of triggers is a key component of improving control and preventing attacks. Treatment of acute symptoms is usually with an inhaled short acting beta-2 agonist and oral corticosteroids. In very severe cases, intravenous corticosteroids, magnesium sulphates and hospitalization may be required.

Stroke

A condition due to the lack of oxygen to the brain that may lead to reversible or irreversible paralysis. The two main types of strokes are Ischemic stroke and Hemorrhagic stroke. The symptoms of stroke include loss of balance, speech problems, dizziness, paralysis, impaired vision, sudden severe headache, confusion. The major causes of strokes are high blood pressure, high cholesterol, cigarette smoking, high level of homocysteine, aging etc. A stroke can some times cause temporary or permanent disabilities, depending on how long the brain lacks blood flow and which part was affected. Complications may include paralysis, memory loss, emotional problems, pain, and changes in behaviours. There are several tests to determine the stroke including blood tests, computerized tomography, magnetic resonance imaging, cerebral angiogram, and echocardiogram. Many stroke prevention strategies are the same strategies to prevent heart disease include controlling hypertension, lowering the

amount of cholesterol in diet, avoid tobacco use; maintaining a healthy diet, avoid alcohol intake and regular exercise etc.

Hypertension

Hypertension or high blood pressure, as it is more commonly known is regarded as the silent killer. It is the disease of modern age. The force exerted by the heart as it pumps the blood in to the large arteries creates a pressure within them and this is called blood pressure. A certain level of blood pressure is thus essential to keep the blood circulating in the body. But when the pressure becomes too high, it results in hypertension which is caused by narrowing of the small blood vessels, known as capillaries throughout the body.

The blood pressure is measured with an instrument called sphygmomanometer in millimetres of mercury. The highest pressure reached during each heart beat is called systolic pressure and the lowest between two beats is known as diastolic pressure. The first gives the pressure of the contraction of the heart as it pushes the blood on its journey through the body and indicates the activity of the heart. The second represents the pressure present in the artery, when the heart is relaxed and shows the condition of blood vessels. The blood pressure level is considered normal is 120/80.

Some of the usual symptoms of hypertension are dizziness, aches and pains in the arms, shoulder, leg and back, palpitations, pain in the heart region, frequent urination, nose bleeding, fatigue, crossness, emotional upsets, tiredness and wakefulness. The most important causes of hypertension are stress, irregular lifestyle, smoking, hardening of the arteries, obesity, diabetes and severe constipation also leads to hypertension.

Treating hypertension is important for reducing the risk of the stroke, heart attack, and heart failure. High blood pressure may be treated medically or by changing lifestyle factors, or a combination of these two. Important lifestyle changes include control weight, avoid smoking, alcoholic consumption, reducing sodium intake, avoid tension, depression and anger, regular exercise etc. Medical options to treat hypertension include several classes of drugs, ACE inhibitors, ARB drugs, diuretics, alpha blockers are the preliminary drugs used in treatment. These medications may be used alone or in combination.

Stress

A state manifested by a specific syndrome which consists of all the non-specifically induced changes within the biological system. The most common diseases associated with stress are heart disease, diabetes, head

ache and peptic ulcer. Other diseases associated resulting from stress are ulcerative colitis, chronic dyspepsia, asthma and sexual disorders. Stress is continuous or repeated frequency a variety of symptoms appear such as dizziness, stiff muscles, vision problems, breathing difficulties, blood sugar irregularities and back ache.

Stress may be caused by variety of factors both outside the body and with in external factors include loud noises, pain, inadequate nutrition, adverse experiences, social issues etc. The factors with in the body include hate, envy, fear or jealousy. Signs of stress may be cognitive, emotional, Physical or behavioural. Cognitive symptoms are memory problems, poor judgement, pessimistic approach, anxiety. Emotional symptoms are moodiness, irritability, agitation, isolation and depression. Physical symptoms are aches, pains, diarrhoea, increased frequency of urination, indigestion etc. Behavioural symptoms are sleeping too much or too little, using alcohol, and nervous habits etc. All relaxation techniques example deep muscle relaxation, relaxed breathing can help to relieve the symptoms of stress. Sleep is the most important natural stress reducer of them all. Regular exercise, healthy diet, avoid alcohol and cigarettes may also help to reduce stress.

Depression

Depression is a state of low mood and aversion to activity that can affect a person's thought, behaviour, feeling and sense of wellbeing. Depressed people can feel sad, anxious, empty, hopeless, helpless, guilty, irritable or restless. They may lose interest in activities that were once pleasurable, experience loss of appetite or over eating. Major depressive disorders are mental disorders, excessive sleeping, fatigue, aches, pain, digestive disorders, tendency to commit suicide etc. Depression may occur with serious medical illness such as heart disease, stroke, cancer, H I V, diabetes, Parkinson's disease, problem of thyroid glands. Depression is caused by a combination of factors such as person's genes, their biochemical environment, personal experience and psychological factors. Its other causes are loneliness, lack of social support, stress, alcohol or drug abuse, unemployment, health problems etc. Lifestyle changes can be very effective to overcome depression that is managing stress, practising relaxation techniques, regular exercise and sleep and cultivating support relationships. Treatment of depression includes medication, some form of therapy and use of neuro transmitters.

Kidney Diseases

Chronic kidney disease is also known as chronic renal disease, is a progressive loss in renal function over a period of months or years. The

symptoms of kidney diseases are shortness of breath, nausea, vomiting, thirst, high blood pressure, itchy skin etc. The most common causes of kidney disease include diabetes, high blood pressure. Kidney diseases are caused by inflammation of the kidneys, called nephritis. Other common causes of kidney failure include certain medications that can be toxic to kidney tissue, and blockage of system that drains to kidneys. Treatment of kidney disease depends on the type of disease, the underlying cause, and the duration of the disease. Kidney disease often progresses from early stage to complete failure. This is known as end-stage renal failure. There is currently no cure for this condition and damage done to the kidneys is irreversible. The medical treatment for complete failure is to replace the lost functions of the kidneys by dialysis, or by kidney transplant. Dialysis is an artificial process of filtering wastes and removing fluid from the body. There are two kinds, peritoneal dialysis and hemo dialysis.

Liver Cirrhosis

Cirrhosis is a slowly progressing disease in which healthy liver tissue is replaced with scar tissue, eventually preventing the liver from functioning properly. The scar tissue blocks the flow of blood through the liver and slows the processing of nutrients, hormones, drugs, and naturally produced toxins. It also slows the production of proteins and other substances made by the liver. The most common symptoms include, fatigue, right-side abdominal pain, loss of appetite and nausea, weight loss, yellow discolouration of the eyes and the skin, fluid collection in the legs and abdomen, increased bruising and bleeding, decrease in mental function. Hepatitis C, alcohol abuse are the most common causes of cirrhosis of the liver, but anything that damages the liver can cause cirrhosis including fatty liver associated with obesity and diabetes, chronic viral infections including the liver (hepatitis types B, C, and D; hepatitis D is extremely rare) Blockage of the bile duct. People with early-stage cirrhosis of the liver usually don't have symptoms. Often, cirrhosis is first detected through a routine blood test or check-up. Other tests are Biopsy, MRI, C T scan, Magnetic resonance electrography. Life style changes can help to reduce the risk of liver cirrhosis. For e.g. drink alcohol moderate, eat healthy diet, maintain a healthy weight, and reduce risk of hepatitis.

Cholesterol Disease

Cholesterol is a waxy substance that's found in the fat in the blood. There are different types of cholesterol. Low density lipoprotein (L.D.L) or bad cholesterol- transport cholesterol particles through out the body. Very low density lipoprotein (V.L.D.L) this contains the most triglyceride, a type of fat attached to the protein in the blood. High density lipoprotein (H.D.L) or good cholesterol pick up excess cholesterol and take it back to liver. The medical term for high bad cholesterol is lipid disorder, hyper lipidimia or hypercholesterolemia. By itself this condition is known has no signs or symptoms. For many people abnormal cholesterol level is partly due to unhealthy life style. This includes lack of exercises, diabetes, kidney disease, being overweight, polycystic ovarian syndrome and under active thyroid gland. Use of medicines such as certain birth control pills, diuretics, beta blockers may also raise cholesterol levels. High cholesterol can cause atherosclerosis, a dangerous accumulation of cholesterol and other deposits on the walls of arteries. These deposits can reduce blood flow through arteries, which can cause complications such as chest pain, heart attack and stroke. A blood test is the only way to detect high cholesterol. Blood test to check cholesterol levels called a lipid panel or lipid profile-typically reports Total cholesterol, L.D.L cholesterol, H.D.L cholesterol, and triglyceride.

Normal blood cholesterol level is below 200 mg/dl. Lifestyle changes are essential to reduce the excess cholesterol level in the body by loss of excess body weight, eat un healthy foods, increase physical activity, limit dietary intake, avoid smoking, and reduce alcohol intake. Drug treatment is also helps to lower low density lipoprotein.

Review of Related Literature

Ford , Croft, Posner and Goodman (2014) conducted a study on co-occurrence of leading life style related chronic conditions among adults in united states .Investigator used self reported data from 196-240 adults who participated in the national health interview surveys from 2002-2009. The result of the study suggest that the burden of selected major lifestyle-related chronic conditions is increased from 2002-2009.

Hiremath, Ghodike, Kumar and Sinha (2014) conducted a comprehensive lifestyle Diseases survey among woman of Ranchi, Jharkhand. A cross sectional study was carried out among the entire woman staying in particular community at Ranchi city. Data were collected from 1373 women who consented for a study using a pre tested self-administrated structured questionnaire and relevant investigations were carried out. The result shows that pre valence of life style-diseases was high even though no base line data exist.

Bal Krishnan (2013) conducted a study to assess the risk factors associated with type-2 diabetes mellitus in rural population of North Kerala. One hundred cases with type-2 Diabetes mellitus and 200 un matched controls with out Diabetes mellitus were recruited for the study. A pre tested self administrated questionnaire was used for Data collection. The results shows that persons of older age group had more chance got diabetes compared to persons of younger age. More over the study shows that Diabetes has no dependency on age and religion.

Hammed, Raman, Pillai, Kumar and Ajay (2013) investigated the relation ship between parental history of migration and Prevalence of Lifestyle Diseases and its risk factors in rural population .The sample consisted of 78173 adult residents from Kerala. This study revealed that people with a history of migration had a higher prevalence of lifestyle Diseases and its risk factors when compared with those had no history of migration.

Jose, Manojan, Augustine and Nujum (2013) estimate the prevalence of Type -2 Diabetes and pre diabetes among adults residing in neyyatinkara taluk of south Kerala. Collection of data is done by conducting house to house visits and doing interviews using a structured questionnaire and blood sugar estimation using glucometer. Prevalence of Type – 2 Diabetes among

adults was found to be very high in the study area in comparison to state, national, global figures.

Sunder (2013) tried to assessing the prevalence and determinants of hyper tension among urban school children in Chennai. A cross sectional study was done among 400 adolescent students including government and private schools. The study found that prevalence of hyper tension among the adolescent age group was alarmingly high. There was no significant difference in prevalence of hypertension based on type of management.

Wang (2013) conducted a study on reducing risk behaviours' linked to lifestyle diseases in Mongolia. 200 male and female workers in Mongolia selected by using random sampling technique. The findings supported the efficacy of the interventions to reduce risk behaviours associated with lifestyle Diseases.

Vivekananda (2013) conducted a study on behavioural risk factors for non – communicable diseases among rural adults in Andrapradesh. A cross sectional study was conducted in rural areas of Karimnagar among 400 participants. The results show the presence of at least one risk factors observed among 76.3% participants.

Gupta, Mohaptra, Shivali and Srivastava (2012) assess the awareness on lifestyle Diseases and their risk factors among rural intermediate school children. Pre tested Questionnaire was used in the study and frequency and proportions were used to analyse the data. The study found that overall awareness of lifestyle Diseases and their risk factors among students was not satisfactory. Awareness of lifestyle diseases and their risk factors among boys was better than girls.

Sochalia, Dipesh, and Yadav (2012) conducted a study on life style Diseases and its risk factors in an area of Jamnagar city. A cross sectional study was conducted. Sample contains 450 male respondents in the age group 35-45 years from Patel colony. The results of the study indicated that there is a high prevalence of lifestyle Diseases and their risk factors in Jamnagar city.

Mane and Karwa (2011) conducted a joint study on risk factors for Lifestyle diseases among adolescent in Western India. This was a prospective cohort study based on teenage questionnaire and clinical examinations. For this study two hundred adolescents including 100 boys and 100 girls were selected. The results show that there is a high prevalence of cardio vascular risk factors in adolescents especially in rich families.

Anand (2011) conducted a study about Lifestyle Diseases associated risk factors in school going children in Delhi. A cross sectional was carried out in government and private schools of Delhi. The findings of this study show that awareness on Lifestyle Diseases and their risk factors among boys were better than girls.

Divakaran, Sreedharan and Shalini (2010) conducted a study on awareness of Lifestyle risk factors of Non- communicable Diseases among school children. For this study a sample of 375 School children, studying in classes 6 to 10 were selected from Kannur district. A close-ended questionnaire was administered to students. It was found that awareness among school children regarding Lifestyle risk factors of Non-communicable diseases is not satisfactory.

Amir and Azizi (2009) made a study about the prevention of Lifestyle Diseases in Tehran Region. Lifestyle interventions were implemented in 5630 people and 935 individuals, served as controls. This controlled community intervention will test the possibility or delaying the onset of Lifestyle Diseases risk factors and disorders in a population in Tehran region.

Sathyan (2009) carried a study on prevalence of obesity and its determinants among school children. A cross sectional study was conducted among 865 elementary school children. The result shows that the prevalence of child hood obesity was found to be very low. However, children

from urban schools and girls were proportionately more obese compared to their counter parts.

Kop pad and Swami (2009) conducted a community based study on the prevalence of risk factors for Lifestyle Diseases in Dravangere city. A cross sectional descriptive community based survey conducted on 2000 urban people of Dravangere city, belonging to the age group 15-64 years. This study revealed that there are substantially high levels of the various behavioural and biological risk factors in urban area.

Vimala (2009) determined the prevalence and possible risk factors for Hypertension and pre hypertensive state in Trivandrum city of Kerala. A team of fourth year trained medical students conducted a random house hold survey. The results of the study indicates that the prevalence of hypertension is high , But the awareness is low.

Sanderson (2008) undertook a study on awareness of Lifestyle Diseases risk factors for Cancer and Heart diseases among adults in U.K. Two open ended questions about Cancer and heart disease risk factors were included in a population based survey of 1747 adults. Results of this study revealed that public awareness on impact of Lifestyle Diseases is very low.

Sugathan (2008) carried out a study on behavioural risk factors for Lifestyle Diseases among adults in Kerala. In which data were collected from

a sample of 6579 Individuals of age group 30-74 ,by stratified random multistage cluster sampling design. This study showed that substantially high levels of various behavioural risk factors are present among adults in Kerala.

Akil, Maheswari and Anand (2006) conducted a study to evaluate the prevalence of Lifestyle associated risk factors for Non –communicable diseases in healthy school children’s at Delhi. The results shows that there is a high prevalence of Lifestyle associated risk factors among school children

Conclusion

The above review of related studies gave a wide perspective of the present study under investigation. Although some studies related to Lifestyle diseases have been undertaken. The investigator found that some studies were connected with Awareness on Lifestyle Diseases among school children (Gupta, Mohaptra, Shivali & Srivastava, 2012., Tanu Anand, 2011., Divakaran, Sreedharan and Shalini, 2010). Some studies related to the assessment of risk factors associated with Lifestyle Diseases and prevention of Lifestyle Diseases (Bal Krishnan, 2013., Ford, Croft, Posner & Goodman, 2014., Wang , 2013 ., Vivekananda, 2013., Sochalia, Dipesh &Yadav, 2012., Mane & Karwa ,2011.,Vimala, 2009., Kop pad & Swami, 2009., Sanderson, 2008., Sugathan, 2008 ., Akhil , Maheswari & Anand ,2006., Amir & Azizi, 2009). Some studies tried to estimate the prevalence of Lifestyle Diseases especially Diabetes, Hypertension, obesity among adults & school children. (Jose, Manojan,

Augustine & Nujum, (2013)., Sunder, 2013., Sathyan , 2009). A study conducted by Hameed, Raman, Pillai, Kumar &Ajay (2013) revealed the relation ship between parental history of migration & prevalence of Lifestyle Diseases and its risk factors. Hiremath, Ghodike, Kumar and Sinha (2014) conducted a comprehensive Lifestyle Diseases survey among woman at Jharkhand. While reviewing the literature related with present study the investigator found that most of the studies focussed on the area of awareness of adults & school children, and also the risk factors associated with Lifestyle Diseases. No research has ever been conducted on prospective teachers. Keeping in view all these matters, the present study is an attempt to find out the extent of awareness on Lifestyle Diseases among Prospective teachers.

METHODOLOGY

-
- *Variables*
 - *Objectives*
 - *Hypothesis*
 - *Tools used for the study*
 - *Sample selected for the Study*
 - *Mode of Data collection*
 - *Scoring and consolidation of data*
-
-

➤ *Statistical techniques used for data collection*

Methodology is the great important procedure of research process. “Method is an established or systematic order for performing any act or conducting any operation” (Good, 1959). Methodology of research involves the procedure or technique adopted in a research study. The role of methodology is to carry out the research work in scientific and valid manner. The success of any work depends upon the stability of the method, tools and techniques that researcher follows to gather adequate data. The method to be adopted depends upon the nature of the study and the type of the data required.

The present study is entitled as AWARENESS ON LIFESTYLE DISEASES AMONG PROSPECTIVE TEACHERS AT SECONDARY LEVEL.

The methodology adopted for the present study is classified under the following headings.

- Variable
- Objectives

- Hypothesis
- Tools used for the study
- Sample selected for the study
- Mode of data collection
- Scoring and consolidation of data
- Statistical techniques used for data collection

A detailed description of each of the above are discussed below.

Variables

For the present study Awareness on lifestyle Disease is treated as major variable and gender, locale of residence, subject of the study, Socio-economic status are treated as classificatory variables.

Objectives

(iii) To find out the extent of awareness on Life style Diseases among prospective teachers at secondary level in the total sample and in the relevant sub samples based on

- Gender
- Locale of Residence

- Socio- economic status
- Subject of study

(iv) To find out whether there exists significant difference in the mean scores of Awareness on Life style Diseases and its components among the relevant sub samples based on

- Gender
- Locale of residence
- Socio- economic status
- Subject of study

Hypothesis

The hypothesis formulated for the study is,

(i) There exists significant difference in the mean scores of Awareness on Life style Diseases and its components among the relevant sub samples based on

- Gender
- Locale of residence

- Socio-economic status
- Subject of study

Tools used for the study

The selection of the appropriate instrument or devices required to collect data is the first step in the investigation. The construction of suitable instrument or tool is of vital importance for successful research. Different tools are required for collecting various kinds of information for various purposes.

For the present study, the investigator developed the following tools for collection of data.

- Socio- economic status scale
- Awareness test on Lifestyle Diseases

Socio-Economic status scale

The general data sheet was used to collect general information like Name, Gender, Locale of Residence, Subject of study and Name of the Institution etc. it was also used to calculate Socio- economic status scores of parents. For which proper weightage are given to Educational level, Occupation and Income as shown in table 1.

Table 1

Weightage given to educational level, Occupation and income

Education	Weightage	Occupation	Weightage	Income	Weight age
SSLC/below SSLC	5	Kooli/agriculture	5	Below 50000	5
Plus Two	10	Semiskilled	10	50000- 2Lakhs	10
Degree	15	Skilled	15	2-3.5Lakhs	15
Post graduation	20	Professional	20	3.5-5 Lakhs	20
Professional	25	Highly professional	25	Above 5 Lakhs	25

Awareness test on Lifestyle Diseases

The tool Awareness test on Lifestyle Diseases is constructed by the investigator with the help of supervising teacher. The procedure followed for the construction of test is given below.

Planning of the test

Before preparing the test the investigator went through different books, magazines, websites related to the topic. After discussing with supervising teacher, Doctors, Health inspectors and experts from national rural health mission, the investigator identified the main components of Lifestyle Diseases. They are

- Basic knowledge about Lifestyle Diseases
- Causes of Lifestyle Diseases
- Effects of Lifestyle Diseases
- Prevention of Lifestyle Diseases

Detailed description of the components of the Awareness test on Lifestyle Diseases is given below.

Basic knowledge about Lifestyle Diseases

Basic knowledge about Lifestyle Diseases is fundamental knowledge related to Lifestyle Diseases. Lifestyle Diseases are diseases associated with the way of person or group of person lives. Some of common Lifestyle Diseases are cancer, diabetes, obesity, hyper tension, cholesterol and stroke etc. 14 items were included from this component. (item no : 1, 2, 5,6 ,8, 12, 13, 20, 24,27, 29,31,33,51)

Example

- Which device is used to measure Blood pressure? (Item no: 20)
 - a) Barometer
 - b) Anemometer
 - c) Hygrometer
 - d) Sphygmomanometer

Causes of Lifestyle Diseases

There are numerous factors that can lead to Lifestyle Diseases. Along with causes like poverty, work pressure, unhealthy diet, ageing, gender, family history etc, unawareness and mis conception of those illnesses are also plays an important role. 15 items were included from this component. (item no: 3,4,7,9,11,14,18,22,30,32,36,39,41,50,53)

Example:

- Which disease results from abnormal increase in total count of W B C? (Item no.18)
a) Leukaemia b) Sickle cell anemia c) Anemia d) A I D S

Effects of Lifestyle Diseases

Effects of Lifestyle Diseases mean consequences of Lifestyle Diseases. Lifestyle Disease have serious impact on persons well being, health and quality of life. 11 items were included from this component.

item no: (10, 25,26,34,38,44,45,46,48,49,56)

Example:

Excessive alcoholic consumption causes..... (Item no. 45)

a) Liver cirrhosis b) Botulism c) Syphilis d) Epizootic

Prevention of Lifestyle Diseases

Prevention of Lifestyle Diseases is defined as the management of those factors that could lead Lifestyle Diseases. So as to prevent the occurrence of Lifestyle Diseases. 17 items were included from this component.

(item no : 15,16,17,19,21,23,28,35,37,40,42,43,47,52,54,55,57)

Example:

- The solution used to detect sugar content in urine? (Item no: 21)
 - a) Glucose solution b) sulphate solution c) H.C.L solution
 - d) Benedict solution

Preparation of the final test

Based upon the above mentioned components the investigator developed the Awareness test on Lifestyle Diseases. This test consist of 57 multiple choice test items with four options.

Scoring procedure

A score of one is given for correct answer and zero for incorrect one. Thus maximum score obtainable on the test is 57 and minimum is zero.

Awareness test on Lifestyle Diseases and scoring key are given in Appendix II & III.

Reliability

Reliability of the test refers to the degree of consistency with which it measures what it is intended to measure. A test must be reliable, that is it must have the ability to consistently yield the same results when repeated measurements are taken of same individuals under the same conditions.

To ensure the reliability of the present awareness test Cronbach's Alpha is a statistical technique used to determine the internal consistency. The values of cronbach's alpha for the items are .94. Hence the tool is highly reliable.

Validity

Validity is that quality of data gathering instrument or procedure which ensures to measure what it is supposed to measure (Best & Khan, 2012). The validity of the present test was ensured by face validity.

A test is said to have face validity when it appears to measure whatever the author had in mind namely what he thought he was measuring. (Garret, 2005). To ensure face validity the investigator consulted expert during the development of the test and the test was given to the experts for the approval of items. And the expert approved the test an appropriate tool for measuring Awareness on Lifestyle Diseases. This ensured face validity.

Selection of sample

The population concerned for the study is B.Ed students under Calicut University. To study the whole population in order to arrive a generalization would not be practical. Hence a sample of 500 B.Ed students was selected by stratified random sampling technique from Malapuram and Calicut district

As the population for the study consisted of different categories like Gender, Locale of Residence, Socio economic status and subject of study.

Gender

Gender has great influence on findings of research. Since it had been found that sex difference exist in many of the variables. The ratio of male students is low compared to the ratio of female students in the B.Ed course. So the investigator decided to give due weightage to male and female students.

Locale of residence

The number of B.Ed colleges in rural areas is more than the number of B.Ed colleges in urban area. Also the number of B.Ed students in rural areas is more than the number of B.Ed students in urban areas. So the investigator decided to give due weightage to the Locale of residence.

Socio- Economic status

Socio- Economic status is a measure of an individual's or family's economic and social position based on education, income and occupation. Socio- economic status is typically broken in to three categories, High socio-economic status, Average socio- economic status, and Low socio -economic status.

Socio -economic status has great influences on the performance of students Banks (1991). So the investigator decided to give due weightage to all these categories.

Subject of study

The three main streams of subjects in B.Ed curriculum were science, commerce and arts. Commerce students were less than that of science and arts stream students so the investigator decided to give due weightage to the subject of study.

Table 2

Break up of final sample

Gender		Locale of residence		Subject of study		
Male	Female	Urban	Rural	Science	Commerce	Huma nities
53	447	182	318	190	90	220

The list of institutions from which the investigator collected data needed for the study are given in the appendix IV.

Mode of data collection

Data collection procedure

After finalizing the sample size and the tools to be used, the investigator prepared list of teacher education colleges to be visited. The investigator approached head of the institutions personally for seeking permission to collect data from their institutions. The investigator also met subject experts of allotted classes and necessary arrangements were made to collect data. Before answering the questions, clear and precise information were given to student teachers and their doubts were clarified. The investigator gave a short explanation about the aim and scope of the study to the student teachers and adopted their conscious cooperation and participation. A uniform procedure adopted through out selected the colleges.

Scoring and consolidation of data

The answer sheets were scored as per scoring key prepared by the investigator. One mark is given to each correct response and zero to the

wrong response. The sum of the scores for all the items will represent his scores for awareness on Lifestyle Diseases. The scoring key is given in the appendix.

The scores obtained on the test were then consolidated and tabulated for further analysis.

Statistical Techniques used for the analysis of data

Percentile analysis

Percentiles are points of a given distribution below which given percentage of cases lies. To find out the norms for the total sample and relevant sub samples percentiles are used. The formula to find out percentile is

$$p_p = l + \left[\frac{pN - F}{fp} \right] xi \quad (\text{Garret, 2005})$$

Where,

- P = Percentage of the distribution wanted
- l = Exact lower limit of the class interval upon which Pp lies
- pN = Part of N to be counted off in order to reach Pp
- F = Sum of all scores upon the intervals below l

f_p = Number of scores with in the interval upon which
Pp falls

i = Length of the class interval

Test of significance of difference between means

The statistical technique Test of significance of difference between means for large independent sample was used to find out if there exist any significant differences in the awareness on Lifestyle Diseases between relevant subgroups.

The formula to calculate critical ratio is

$$\text{Critical ratio } t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{\sigma_1^2}{N_1} + \frac{\sigma_2^2}{N_2}}} \quad (\text{Best \& Khan, 2002})$$

Where,

\bar{X}_1 = Mean of the first group

\bar{X}_2 = Mean of the second group

σ_1^2 = Square of standard deviation of first group.

σ_2^2 = Square of standard deviation of second group.

N_1 = Size of the first group

N_2 = Size of the second group

If the obtained critical ratio is greater than the required table value at 0.05/0.01 levels of significance, the mean difference is considered to be significant.

One way ANOVA

To find out whether there exists any significant difference in the mean scores Awareness on Lifestyle Diseases among the relevant sub sample based on subject of study and socio economic status, one way ANOVA was used and followed by scheffe's post hoc analysis.

The major assumptions of ANOVA are,

- The distribution of the dependent variable should be normal
- Homogeneity of variance
- The samples drawn should be random and independent.

ANALYSIS

-
- *Objectives*
 - *Hypothesis*
 - *Preliminary analysis*
 - *Major analysis*
 - *Conclusion*
-
-

This chapter deals with the analysis and interpretation of data described in the methodology chapter. The present study is intended to find out the extent of Awareness on Lifestyle Diseases among prospective teachers at secondary level on the basis of Gender, Locale of Residence, Subject of study and Socio economic status. The analysis is based on the following objectives and hypothesis.

Objectives

The objectives of the present study are presented below.

- (1) To find out the extent of awareness on Life style Diseases among prospective teachers at secondary level in the total sample and in the relevant sub samples based on
 - Gender
 - Locale of Residence
 - Socio- economic status
 - Subject of the study

(ii) To find out whether there exists significant difference in the mean scores of Awareness on Life style Diseases and its components among the relevant sub samples based on

- Gender
- Locale of Residence
- Socio -economic status
- Subject of study

Hypothesis

The hypothesis formulated for the study is,

(i) There exists significant difference in the mean scores of Awareness on Life style Diseases and its components among the relevant sub samples based on

- Gender
- Locale of Residence
- Socio -economic status
- Subject of study

Discussion of the result obtained through statistical analysis of the collected data is presented under the following headings.

- Preliminary Analysis
- Extent of Awareness on Lifestyle Diseases among total sample and in the relevant sub samples.
- Comparison of mean scores of Awareness on Lifestyle Diseases among prospective teachers at secondary level based on Gender, Locale of Residence, Socio economic status, Subject of study.

Preliminary Analysis

The important statistical properties of the scores on the variable Awareness on Lifestyle Diseases were analyzed as a preliminary step. The mean, median mode, standard deviation, skewness and kurtosis were calculated for total sample.

Table: 3

Descriptive statistics of the variable Awareness on Lifestyle Diseases among prospective teachers at secondary level

Variable	N	Mean	Median	Mode	Stand deviation	Skewness	Kurtosis
Awareness on Lifestyle Diseases	500	35.19	36	37	8.88	-.47	.05

Discussion of the result

Table 3 shows that the values of mean, median, mode of the variable Awareness on Lifestyle Diseases for total sample are 35.19, 36 and 37 respectively. These values are almost equal which shows the possibility of the variable to follow a normal distribution. The obtained value for the skewness is -0.47 which means the distribution is negatively skewed. The value of kurtosis is 0.05 , which suggests that the above distribution is leptokurtic. The above discussion shows that the distribution of the variable Awareness on Lifestyle Diseases is approximately normal.

Graphical representation of the scores of the variable Awareness on Lifestyle Diseases among prospective teachers at secondary level is presented below:

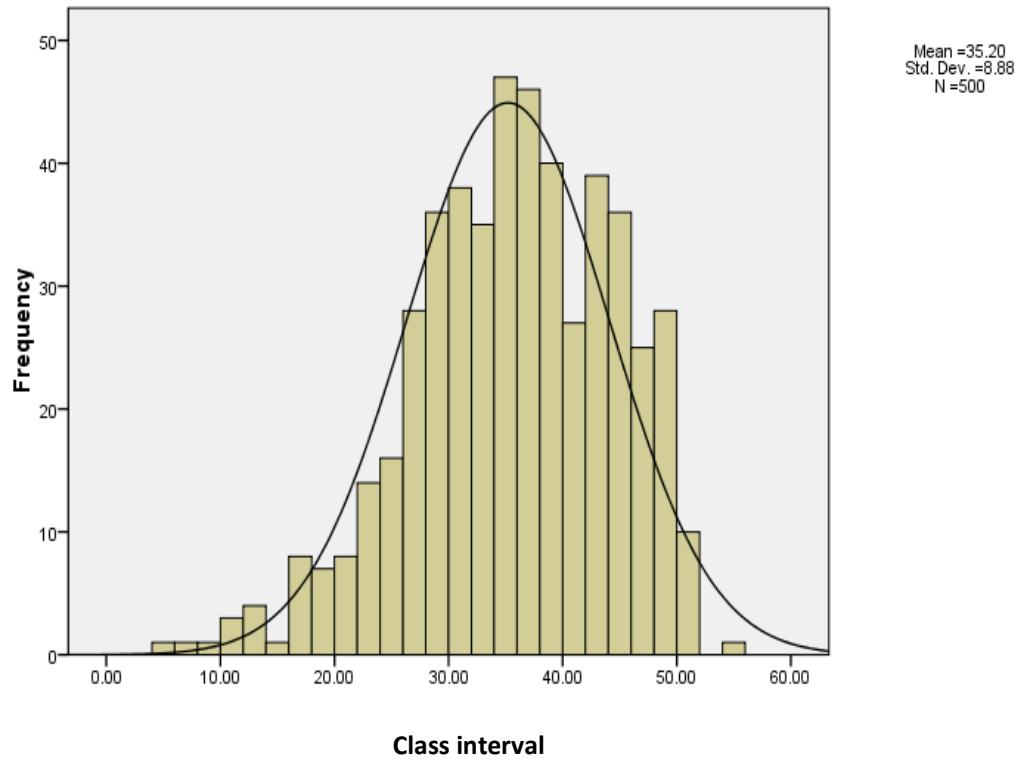


Figure 1 Histogram with smoothed curve of the Awareness on Lifestyle Diseases of total sample

Major Analysis

Extent of Awareness on Lifestyle Diseases among prospective teachers in the total sample and in the relevant sub samples

Extent of Awareness on Lifestyle Diseases among prospective teachers in the total sample and in the relevant sub samples based on gender, locale of residence, socio- economic status and subject of study were established by using mean and percentiles.

Extent of Awareness on Lifestyle Diseases for the total sample

The mean and percentile scores of Awareness on Lifestyle Diseases for total sample are given in Table-4

Table 4

Mean and Percentile scores of Awareness on Lifestyle Diseases among prospective teachers in the total sample.

Mean score	Percentile	Scores
35.19	P ₁₀	24
	P ₂₀	28
	P ₃₀	31
	P ₄₀	33
	P ₅₀	36
	P ₆₀	38
	P ₇₀	41

P ₈₀	43
P ₉₀	46

Discussion of the result

It is evident from the table that mean scores of Awareness on Lifestyle Diseases among prospective teachers is 35.19 .The possible minimum value for the Lifestyle Diseases Awareness test is zero and possible maximum value is 57. The mean score obtained for the Lifestyle Diseases Awareness test is 35.19 which is greater than neutral value (28.5) which means that the level of Awareness on Lifestyle Diseases of prospective teachers satisfactory to certain extent.

Table: 2 also reveal the percentile score for total samples.

The 10th percentile of the scores of the Awareness on Lifestyle Diseases is 24. This means only 10 percent of prospective teachers lie below the score 24, and 90 percent of prospective teachers lie above that score.

The 90th percentile of the scores of the Awareness on Lifestyle Diseases is 46. This means only 10 percent of prospective teachers lie above the score 46, and 90 percent of prospective teachers lie below that score.

In this manner we can interpret other percentiles also.

Extent of Awareness on Lifestyle Diseases among prospective teachers for the relevant sub samples

Table: 5

Mean and percentile scores of Awareness on Lifestyle Diseases of male and female prospective teachers at secondary level.

Mean score		Percentiles	Scores	
Male	Female		Male	Female
31.43	35.64	P ₁₀	17	25
		P ₂₀	22	28
		P ₃₀	26	31
		P ₄₀	29	34
		P ₅₀	31	36
		P ₆₀	35	38
		P ₇₀	37	41
		P ₈₀	40	44
		P ₉₀	45	47

Discussion of the result

The mean scores of Awareness on Lifestyle Diseases among male and female prospective teachers are 31.43 and 35.64 respectively.

Table 3 also reveals percentile scores for Awareness on Lifestyle Diseases among male and female prospective teachers. The 10th percentile

obtained for male and female prospective teachers are 17 and 25 respectively. This means 10 percent of male and female prospective teachers lie below the score 17 and 25 respectively and 90 percent lie above that score. Similarly we can interpret other percentiles.

Table: 6

Mean and percentile scores of Awareness on Lifestyle Diseases among prospective teachers based on Locality.

Mean score		Percentiles	Scores	
Rural	Urban		Urban	Rural
		P ₁₀	24	23
		P ₂₀	29	27
		P ₃₀	31	29
		P ₄₀	34	32
34.51	35.59	P ₅₀	36	35
		P ₆₀	38	37
		P ₇₀	41	40
		P ₈₀	44	43
		P ₉₀	46	47

Discussion of the result

The obtained mean score for rural and urban prospective teachers in the Awareness test is 34.51 and 35.59 respectively.

From the table, the 50th percentile of the scores of Awareness on Lifestyle Diseases for rural and urban prospective teachers is 35 and 36 respectively. This means 50 percent of rural and urban prospective teachers lie below the score 35 and 36 respectively. Similarly we can interpret other percentiles.

Table: 7

Mean and percentile scores of Awareness on Lifestyle Diseases among prospective teachers based on Socio -economic status.

Mean score				Scores		
High	Average	Low	Percentiles	High	Average	Low
S.E.S	S.E.S	S.E.S		S.E.S	S.E.S	S.E.S
			P ₁₀	24.50	25.7	22
			P ₂₀	28	29	27
36	37	33.42	P ₃₀	32.50	32	29
			P ₄₀	36	34	31
			P ₅₀	38.50	38.20	34

P ₆₀	41	41	35
P ₇₀	43	43	38
P ₈₀	45	45	42
P ₉₀	47.50	47	45.9

Discussion of the result

Investigator estimated the scores of socio-economic status and categorised them in to three categories viz., High, Low and Average socio-economic status by using mean (39) and half of standard deviation (12). Scores which are more than 'mean+ half of standard deviation' were put in to high socio-economic status and scores which are less than 'mean- half of standard deviation' were put in to low socio-economic status. Scores between these two values were considered average socio-economic status. Hence those prospective teachers socio-economic scores 51 and above were grouped as high socio-economic status and those scored 27 and below are considered low socio –economic status .Between these two values are considered as average socio-economic status.

It is inferred from the table 5 that the mean values obtained for Lifestyle Diseases Awareness test among prospective teachers from High, Average, low socio -economic status are 36, 37 and 33.42 respectively.

The table also reveals that 10th percentile of the scores of Awareness test on Lifestyle Diseases among prospective teachers from High, Average, Low socio- economic status are 24.50, 25.70 and 22 respectively. This means only 10 percent of prospective teachers from High, Average, Low socio-economic status lie below the score 24.50, 25.70, and 22 respectively. And 90 percent lie above that score. Similarly we can interpret other percentiles.

Table: 8

Mean and percentile scores of Awareness on Lifestyle Diseases among prospective teachers based on subject of study.

Mean score			Percentiles			Scores		
			P ₁₀	33	23	20		
			P ₂₀	37	28	25		
			P ₃₀	40	30	27		
41.91	33.42	30.12	P ₄₀	42	32	29		
			P ₅₀	43	34	31		
			P ₆₀	44	35	33		
			P ₇₀	45	38	35		
			P ₈₀	47	40	37		

P ₉₀	49	43	38
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Discussion of result

Mean scores of Awareness on Lifestyle Diseases for science prospective teachers is 41.91, which means that the science prospective teachers excel in awareness on Lifestyle Diseases. The mean scores of Awareness on Lifestyle Diseases for commerce and humanities prospective teachers are 33.42 and 30.12 respectively.

It is evident from the table 6, the 90th percentile of the scores of the Awareness on Lifestyle Diseases for science, commerce and humanities prospective teachers are 49, 43 and 38 respectively. This means only 10 percent of science, commerce and humanities prospective teachers lie above the scores 49, 43 and 38 respectively and 90 percent lie below that score. Similarly we can interpret other percentiles.

Comparison of mean scores of Awareness on Lifestyle Diseases and its components among prospective teachers based on Gender, Locale of Residence, Socio- economic status and Subject of study

The third step of the analysis was to find out the whether there exists any significant difference in the mean scores of Awareness on Lifestyle Diseases and its components among prospective teachers in the relevant sub samples based on Gender, Locale of residence, Socio- economic status, subject of study.

Results of comparison of Awareness on Lifestyle Diseases for each relevant sub sample are discussed under the following headings

- Significance of difference in Awareness on Lifestyle Diseases and its components among prospective teachers based on Gender.
- Significance of difference in Awareness on Lifestyle Diseases and its components among prospective teachers based on Locale of residence.
- Significance of difference in Awareness on Lifestyle Diseases and its components among prospective teachers based on Socio- economic status.

- Significance of difference in Awareness on Lifestyle Diseases and its components among prospective teachers based on Subject of study.

Significance of difference in Awareness on Lifestyle Diseases and its components among prospective teachers based on Gender

In order to study gender difference in Awareness on Lifestyle Diseases and its components among prospective teachers two tailed test of significance of difference between the means of subgroups viz., males and females are presented in table 9.

Table 9

Data and result of test of significance of difference between means of Awareness on Lifestyle Diseases and its components between males and females.

Variable	Gender	N	Mean	Std. Deviation	t-value
Awareness on Lifestyle Diseases (total)	Male	53	31.43	9.75	3.29
	Female	447	35.64	8.67	
Basic knowledge	Male	53	8.09	2.44	1.36
	Female	447	8.56	2.34	
Causes	Male	53	9.11	3.02	3.47
	Female	447	10.55	2.82	
Effects	Male	53	5.52	2.47	2.66
	Female	447	6.36	2.11	
Prevention	Male	53	8.69	3.24	3.48
	Female	447	10.17	2.86	

Discussion of the result

From the Table 9, the calculated value of 't' for Awareness on Lifestyle Diseases and its components viz., causes, effects and prevention of Lifestyle Diseases are 3.29, 3.47, 2.66 and 3.48 respectively. All these values are greater than the tabled value 2.58 required for significance at 0.01 level. This means that there is significant difference between male and female

prospective teachers in their Awareness on Lifestyle Diseases and its components viz., causes, effects and prevention of Lifestyle Diseases.

The calculated value of 't' for Awareness on basic knowledge about Lifestyle Diseases 1.36, which is less than the tabled value 1.96 required for significance at 0.05 level. That means male and female prospective teachers do not differ significantly in their basic knowledge about Lifestyle Diseases.

An estimation of mean scores indicates that female prospective teachers have more Awareness on Lifestyle Diseases and its components viz., causes, effects and prevention of Lifestyle Diseases than male prospective teachers.

Significance of difference in Awareness on Lifestyle Diseases and its components among prospective teachers based on Locale of Residence

Based on Locale of Residence the total group was divided in to two groups viz., rural and urban. To determine whether there is significant difference among these groups in Awareness on Lifestyle Diseases and its components two tailed t-test was used.

Table10

Data and result of test of significance of difference between means of Awareness on Lifestyle Diseases and its components between rural and urban

Variables	Locale	N	Mean	Std. Deviation	t-value
Awareness on Lifestyle Diseases (total)	Rural	318	35.59	8.88	1.31
	Urban	182	34.51	8.85	
Basic knowledge	Rural	318	8.57	2.36	.75
	Urban	182	8.40	2.35	
Causes	Rural	318	10.53	2.83	1.40
	Urban	182	10.15	2.94	
Effects	Rural	318	6.31	2.16	.57
	Urban	182	6.19	2.16	
Prevention	Rural	318	10.16	2.91	1.54
	Urban	182	9.74	2.98	

Discussion of the result

The critical ratio obtained for Awareness on Lifestyle Diseases and its components among prospective teachers is based on viz., Locale of Residence are 1.31, .75, 1.43, .57 and 1.54 respectively. As the t values are below 1.96 the required value for significance at 0.05 level, they do not differ

in their awareness based on Locale of Residence. It means that rural and urban prospective teachers do not differ in their Awareness on Lifestyle Diseases and its components.

Significance of difference in Awareness on Lifestyle Diseases and its components among prospective teachers based on Socio -economic status

To compare the mean scores of Awareness on Lifestyle Diseases and its components among prospective teachers based on socio economic status viz., High socio economic status, Average socio economic status, Low socio economic status one way ANOVA is used. The details of the result are given in table 11.

Table 11

Data and result of ANOVA for the mean comparison of awareness on Lifestyle Diseases and its components based on Socio economic status

Variables	Source of variance	Sum of Squares	df	Mean Square	F
Awareness on Lifestyle Diseases(total)	Between Groups	1082.43	2	541.21	7.02
	Within Groups	38266.96	497	76.99	
	Total	39349.39	499		
Basic knowledge	Between Groups	46.00	2	23.00	4.18
	Within Groups	2734.91	497	5.50	
	Total	2780.92	499		
Causes	Between Groups	114.54	2	57.27	7.07
	Within Groups	4025.25	497	8.09	
	Total	4139.79	499		
Effects	Between Groups	29.057	2	14.52	3.12
	Within Groups	2311.95	497	4.65	
	Total	2341.00	499		
Prevention	Between Groups	110.46	2	55.23	6.52
	Within Groups	4209.40	497	8.47	
	Total	4319.87	499		

Discussion of the result

Table 11 shows that the obtained F values for variable Awareness on Lifestyle Diseases and its components viz; causes and prevention of Lifestyle Diseases are 7.02, ,7.07, and 6.52 respectively. All these values are greater than the F value, 4.65 for (2,497) degrees of freedom at 0.01 level of significance. This suggest that the variable Awareness on Lifestyle Diseases and its components viz., causes and prevention differ significantly among prospective teachers from High, Average, Low socio economic status.

The above table also reveals that the F values for the components basic knowledge and effects of Lifestyle Diseases are 4.18 and 3.12 respectively. These values are greater than the F value 3.01 for (2,497) degrees of freedom at 0.05 level of significance. This shows that the components basic knowledge and effects of Lifestyle Diseases differ significantly among prospective teachers from High, Average, Low socio economic status.

To know which are the groups that differ in their Awareness on Lifestyle Diseases and its components among prospective teachers scheffe's test was done as post hoc analysis.

Table 12

Details of Multiple comparison of Awareness on Lifestyle Diseases and its components among prospective teachers at secondary level based on Socio-economic status.

Variables	Groups	Mean difference
Awareness on Lifestyle Diseases(total)	Low – Average	-2.70*
	Low-High	-3.42*
	High-Average	.71
Basic Knowledge	Low – Average	-.65*
	Low-High	-.52
	High-Average	-.12
Causes	Low – Average	-.81*
	Low-High	-.1.17*
	High-Average	-.36
Effects	Low – Average	-.40
	Low-High	-.59
	High-Average	.19
Prevention	Low – Average	.83*
	Low-High	-1.12*
	High-Average	.28

* The mean difference is significant at the 0.05 level.

Discussion of the result

It is obtained from the table prospective teachers from Low and Average, Low and High Socio-economic status differ in their Awareness on Lifestyle Diseases and its components viz., causes, prevention.

Prospective teachers from Low and average Socio- economic status differ in their Awareness on basic knowledge about Lifestyle Diseases.

Prospective teachers from High and Average Socio-economic status do not differ in their Awareness on Lifestyle Diseases and its components viz., basic knowledge, causes, effects, prevention.

Prospective teachers from Low and High Socio economic status do not differ in their Awareness on basic knowledge about Lifestyle Diseases.

Prospective teachers from Low and Average, Low and High Socio-economic status do not differ in their Awareness on effects of Lifestyle Diseases.

Scheffe's post hoc criteria for significance indicated that prospective teachers from High socioeconomic status have high awareness on Lifestyle Diseases and its components than prospective teachers from Average and Low socio economic status.

Significance of difference in Awareness on Lifestyle diseases and its components among prospective teachers based on Subject of study

Table 13

Data and result of ANOVA for the mean comparison of awareness on Lifestyle diseases and its components based on Subject of study.

Variables	Source of variance	Sum of Squares	df	Mean Square	F
Awareness on Lifestyle Diseases (total)	Between Groups	14525.10	2	7262.55	145.40
	Within Groups	24824.29	497	49.94	
	Total	39349.39	499		
Basic knowledge	Between Groups	505.40	2	252.70	55.19
	Within Groups	2275.50	497	4.579	
	Total	2780.92	499		
Causes	Between Groups	1405.32	2	702.66	127.71
	Within Groups	2734.47	497	5.50	
	Total	4139.79	499		
Effects	Between Groups	626.85	2	313.42	90.87
	Within Groups	1714.15	497	3.44	
	Total	2341.00	499		
Prevention	Between Groups	1279.81	2	639.90	104.61

Within Groups	3040.06	497	6.11
Total	4319.87	499	

Discussion of the result

It is obtained from the table F values for the variable Awareness on Lifestyle Diseases and its components viz., basic knowledge , causes, effects, prevention among prospective teachers based on subject of study are 145.40, 55.19, 127.71, 90.87and 104.61 respectively. All of these values are greater than F value 4.65 for (2,497) degrees of freedom at 0.01 level of significance. This suggests that Awareness on Lifestyle Diseases and its components viz; basic knowledge, causes, effects, prevention among prospective teachers differ significantly based on subject of study. To know which are the groups that differ in their Awareness on Lifestyle Diseases and its components among prospective teachers scheffe's test was done as post hoc analysis.

Table 14

Details of Multiple comparison of Awareness on Lifestyle Diseases and its components among prospective teachers at secondary level based on Subject of study

Variables	Groups	Mean difference
Awareness on Lifestyle Diseases	Science-Commerce	8.49*
	Science- Humanities	11.79*
	Commerce-Humanities	3.29*
Basic Knowledge	Science-Commerce	1.85*
	Science- Humanities	2.14*
	Commerce-Humanities	.28
Causes	Science-Commerce	2.52*
	Science- Humanities	3.68*
	Commerce-Humanities	1.15*
Effects	Science-Commerce	1.53*
	Science- Humanities	2.47*
	Commerce-Humanities	.93*
Prevention	Science-Commerce	2.57*
	Science- Humanities	3.49*
	Commerce-Humanities	.92*

* The mean difference is significant at the 0.05 level.

Discussion of the result

From the table14, revealed that Science and Commerce, Science and Humanities and Commerce and Humanities differ in their Awareness on

Lifestyle Diseases and its components viz., causes, effects, prevention of Lifestyle Disease.

Science and Commerce, Science and Humanities prospective teachers differ in their Awareness on basic knowledge about Lifestyle Diseases. Commerce and Humanities prospective teachers do not differ in their Awareness on basic knowledge about Lifestyle Diseases.

Scheffe's post hoc criteria for significance indicated that Science prospective teachers have high Awareness on Lifestyle Diseases and its components than Commerce and Humanities prospective teachers.

Conclusion

Based on the analysis the investigator reached the following conclusion.

Extent of Awareness on Lifestyle Diseases among prospective teachers is 35.19 which are higher than the neutral value 28.5. So they have satisfactory awareness on Lifestyle Diseases.

Based on gender awareness on Lifestyle Diseases and its components except the component basic knowledge about Lifestyle Diseases differ significantly. Female prospective teachers have more awareness than that of males.

Regarding the Locale of Residence, awareness on Lifestyle Diseases and its components do not differ significantly.

Based on socio-economic status, Awareness on Lifestyle Diseases and its components among prospective teachers differ significantly. Prospective teachers from High socioeconomic status have high awareness on Lifestyle Diseases and its components than prospective teachers from Average and Low socio economic status. Prospective teachers from Low socio-economic status scored the least. Prospective teachers from Low and Average, Low and High Socio-economic status differ in their Awareness on Lifestyle Diseases and its components viz., causes, prevention. Prospective teachers from Low and average Socio- economic status differ in their Awareness on basic knowledge about Lifestyle Diseases. Prospective teachers from High and Average Socio-economic status do not differ in their Awareness on Lifestyle Diseases and its components viz., basic knowledge, causes, effects, prevention. Prospective teachers from Low and High Socio economic status do not differ in their Awareness on basic knowledge about Lifestyle Diseases. Prospective teachers from Low and Average, Low and High Socio-economic status do not differ in their Awareness on effects of Lifestyle Diseases.

Based on Subject of study, Awareness on Lifestyle Diseases and its components among prospective teachers differ significantly. Science

prospective teachers have better awareness on Lifestyle Diseases and its components than commerce and humanities prospective teachers. Humanities prospective teachers scored the least, which could be improved a lot. Prospective teachers from Science and Commerce, Science and Humanities and Commerce and Humanities differ in their Awareness on Lifestyle Diseases and its components viz., causes, effects, prevention of Lifestyle Diseases. Science and Commerce, Science and Humanities prospective teachers differ in their Awareness on basic knowledge about Lifestyle Diseases. Commerce and Humanities prospective teachers do not differ in their Awareness on basic knowledge about Lifestyle Diseases.

Tenability of Hypothesis

Hypothesis states that there exist significant difference in the mean scores of Awareness on Lifestyle Diseases and its components among the relevant sub samples based on (a) Gender (b) Locale of Residence (c) Socio-economic status (d) Subject of study

The first part of the hypothesis states that 'there exist significant difference in the mean scores of Awareness on Lifestyle Diseases and its components among male and female prospective teachers '. The results shows that there exist significant difference in the mean scores of Awareness on Lifestyle Diseases and its some components viz., causes,

effects, prevention. Also the result shows that there exists no significant difference between male and female prospective teachers in their Awareness on basic knowledge about Lifestyle Diseases. Hence hypothesis (a) is partially substantiated.

The second part of the hypothesis states that 'there exist significant difference in the mean scores of Awareness on Lifestyle Diseases and its components among rural and urban prospective teachers. The results show that there exist no significant difference in the mean scores of Awareness on Lifestyle Diseases and its components among rural and urban prospective teachers. Hence hypothesis (b) is rejected.

The third part of the hypothesis states that 'there exist significant difference in the mean scores of Awareness on Lifestyle Diseases and its components among prospective teachers based on socio- economic status'. The results shows that there exist significant difference in the mean scores of Awareness on Lifestyle Diseases and its components among prospective teachers based on socio- economic status. Hence hypothesis (c) is substantiated.

The fourth part of the hypothesis states that 'there exist significant difference in the mean scores of Awareness on Lifestyle Diseases and its components among prospective teachers based on subject of study'. The

results shows that there exist significant difference in the mean scores of Awareness on Lifestyle Diseases and its components among prospective teachers based on subject of study. Hence hypothesis (d) is substantiated.

SUMMARY, FINDINGS, CONCLUSION AND SUGGESTIONS

-
- *Re statement of the Problem*
 - *Variables*
 - *Objectives*
 - *Hypothesis*
 - *Methodology*
 - *Major Findings*
 - *Conclusion*
 - *Educational Implications*
 - *Suggestions for further
Research*
-

This chapter provides an overview of the significant aspects of the various stages of the study.

Study in Retrospect

Various aspect of the present study like the problem, variables, objectives and hypothesis are reviewed retrospectively.

Restatement of the Problem

The present study is entitled as **Awareness on Life style Diseases among prospective teachers at Secondary Level.**

Variables

- Awareness on Lifestyle Diseases
- Classificatory variables
 - Gender
 - Locale of Residence
 - Socio- economic status
 - Subject of study

Objectives

(v) To find out the extent of awareness on Life style Diseases among prospective teachers at secondary level in the total sample and in the relevant sub samples based on

- Gender
- Locale of Residence
- Socio-economic status
- Subject of study

(vi) To find out whether there exists significant difference in the mean scores of Awareness on Life style Diseases and its components among the relevant sub samples based on

- Gender
- Locale of Residence
- Socio-economic status
- Subject of study

Hypothesis

The hypothesis formulated for the study is,

- (i) There exists significant difference in the mean scores of Awareness on Life style Diseases and its components among the relevant sub samples based on
- Gender
 - Locale of Residence
 - Socio-economic status
 - Subject of study

Methodology

Methodology deals with the description of sample, tool, statistical techniques used for the study.

Sample

The population of the study is prospective teachers at Secondary Level under Calicut University, and hence the study was conducted on a sample of 500 B.Ed. students drawn from different Teacher Education institution under Calicut University. The samples were selected by stratified

sampling technique giving due representation to gender, locale of Residence, socio- economic status, subject of study.

Tools

The awareness on Life style Diseases among prospective teachers at secondary level was measured by using Awareness test on Lifestyle Diseases. This was constructed by the investigator with the help of the supervising teacher. This test will be consisted of 57 multiple choice of test items with four options under four dimensions. Another tool used in this study was Socio-economic status scale to measure Socio- economic status of prospective teachers.

Statistical techniques

Statistical techniques proposed to be used are

- Preliminary analysis
- Percentiles
- Test of significance of difference between means for large independent sample
- One-way ANOVA

Major Findings

Following are the major findings obtained after analysis of the collected data.

- Extent of Awareness on Lifestyle Diseases among prospective teachers in the total sample is $M = 35.19$
- Extent of Awareness on Lifestyle Diseases for male and female prospective teachers is $M=31.43, 35.64$ respectively.
- Extent of Awareness on Lifestyle Diseases for urban and rural prospective teachers is $M=35.59, 34.51$ respectively.
- Extent of Awareness on Lifestyle Diseases among prospective teachers from high, average and low socio-economic status is $M=36, 37$ and 33.42 respectively.
- Extent of Awareness on Lifestyle Diseases for science, commerce and humanities prospective teachers are $M=41.91, 33.42$ and 30.12 respectively.
- Based on Gender, Awareness on Lifestyle Diseases and its components except the component basic knowledge about lifestyle diseases among prospective teachers differ significantly ($t=3.29, 3.47,$

2.66 & 3.48). Female prospective teachers have more awareness on Lifestyle Diseases and its components than that of males.

- Rural and Urban prospective teachers do not differ significantly in their Awareness on Lifestyle Diseases and its components. ($t=1.31, .75, 1.40, .57, 1.54$)
- Based on socio-economic status, Awareness on Lifestyle Diseases and its components among prospective teachers differ significantly. [$F=7.02, 4.18, 7.07, 3.12, 6.52$ for (2,497) degrees of freedom]
- Prospective teachers from Low and Average, Low and High Socio-economic status differ in their Awareness on Lifestyle Diseases and its components viz; causes, prevention.
- Prospective teachers from Low and average Socio-economic status differ in their Awareness on basic knowledge about Lifestyle Diseases.
- Prospective teachers from High and Average Socio-economic status do not differ in their Awareness on Lifestyle Diseases and its components viz; basic knowledge, causes, effects, prevention.
- Prospective teachers from Low and High Socio economic status do not differ in their Awareness on basic knowledge about Lifestyle Diseases.

- Prospective teachers from Low and Average , Low and High Socio-economic status do not differ in their Awareness on effects of Lifestyle Diseases
- Prospective teachers from High socioeconomic status have high awareness on Lifestyle Diseases and its components than prospective teachers from Average and Low socio economic status.
- Based on Subject of study, Awareness on Lifestyle Diseases and its components among prospective teachers differ significantly. [F= 145.40, 55.19, 127.71, 90.87, 104.61 for (2,497) degrees of freedom]
- Prospective teachers from Science and Commerce, Science and Humanities and Commerce and Humanities differ in their Awareness on Lifestyle Diseases and its components viz; causes, effects, prevention of Lifestyle Disease.
- Science and Commerce, Science and Humanities prospective teachers differ in their Awareness on basic knowledge about Lifestyle Diseases. Commerce and Humanities prospective teachers do not differ in their Awareness on basic knowledge about Lifestyle Diseases.

- Science prospective teachers have high Awareness on Lifestyle Diseases and its components than Commerce and Humanities prospective teachers.

Conclusion

Based on the analysis the investigator reached the following conclusion.

Extent of Awareness on Lifestyle Diseases among prospective teachers is 35.19 which are higher than the neutral value 28.5. So they have satisfactory awareness on Lifestyle Diseases.

Based on gender awareness on Lifestyle Diseases and its components except the component basic knowledge about Lifestyle Diseases differ significantly. Female prospective teachers have more awareness than that of males.

Regarding the Locale of Residence, awareness on Lifestyle Diseases and its components do not differ significantly.

Based on socio-economic status, Awareness on Lifestyle Diseases and its components among prospective teachers differ significantly. Prospective teachers from High socioeconomic status have high awareness on Lifestyle Diseases and its components than prospective teachers from Average and

Low socio economic status. Prospective teachers from Low socio-economic status scored the least. Prospective teachers from Low and Average, Low and High Socio-economic status differ in their Awareness on Lifestyle Diseases and its components viz; causes, prevention. Prospective teachers from Low and average Socio- economic status differ in their Awareness on basic knowledge about Lifestyle Diseases. Prospective teachers from High and Average Socio-economic status do not differ in their Awareness on Lifestyle Diseases and its components viz; basic knowledge, causes, effects, prevention. Prospective teachers from Low and High Socio economic status do not differ in their Awareness on basic knowledge about Lifestyle Diseases. Prospective teachers from Low and Average, Low and High Socio-economic status do not differ in their Awareness on effects of Lifestyle Diseases.

Based on Subject of study, Awareness on Lifestyle Diseases and its components among prospective teachers differ significantly. Science prospective teachers have better awareness on Lifestyle Diseases and its components than commerce and humanities prospective teachers. Humanities prospective teachers scored the least, which could be improved a lot. Prospective teachers from Science and Commerce, Science and Humanities and Commerce and Humanities differ in their Awareness on Lifestyle Diseases and its components viz; causes, effects, prevention of

Lifestyle Diseases. Science and Commerce, Science and Humanities prospective teachers differ in their Awareness on basic knowledge about Lifestyle Diseases. Commerce and Humanities prospective teachers do not differ in their Awareness on basic knowledge about Lifestyle Diseases.

Educational Implications

The present study gave the investigator a vivid picture of the Awareness among the prospective teachers on Lifestyle Diseases. The value of research lies in its implications.

The various items in the Awareness test on Lifestyle Diseases will give an idea to the prospective teachers about the level of Lifestyle Diseases awareness, it will enable them to improve awareness on Lifestyle Diseases.

The result of the analysis shows that the awareness on Lifestyle Diseases among prospective teachers is only satisfactory to certain extent. Hence pioneer importance should be given to introduce the concept of teaching of Lifestyle Diseases through the curriculum for upgrading the awareness level of prospective teachers.

From the analysis based on gender shows that the supremacy of females over males in their awareness on Lifestyle Diseases. This is because females are more interested in reading the books and magazines on the related topics. In addition to this, they are very keen to preserve the health and hygiene of their siblings and spouse. Contrary to this, the males are more addicted to the fast foods and they have to eat fast foods at times as they are always busy by their work. So the educational institution create

suitable environment and conduct special programs such as seminars, workshops, and exhibition etc, especially for the male prospective teachers.

Prospective teachers from science have higher awareness on Lifestyle Diseases than commerce and humanities prospective teachers. This is because science prospective teachers got more theoretical back ground about the structure of human body and diseases associated with them. So necessary action plan is needed for the development of awareness on Lifestyle Diseases among commerce and humanities prospective teachers. Also theoretical orientation should be given to all prospective teachers especially commerce and humanities prospective teachers.

It is obvious from the study that there is significant difference between prospective teachers on the basis of their socio-economic status. Prospective teachers from high socio-economic status occupy first position followed by prospective teachers having average and low socio-economic status respectively. Prospective teachers from Low socio-economic status show little awareness on the components of causes and prevention of Lifestyle Diseases. This will lead them easily vulnerable to those diseases and they won't be able to sensitize the brewing generation of youngsters. Therefore immediate attention from the concerned authorities should be taken to improve the awareness on lifestyle Diseases among the prospective teachers

from the low socio-economic status. Since they are comparatively economically backward the journals, magazines and necessary brochures and pamphlet should be freely supplied.

The following concrete steps can be taken in the educational institution in order to impart awareness on Lifestyle Diseases among students.

- Include subject covering Lifestyle Diseases in the curriculum starting from, say fifth standard.
- Display posters with catchy illustrations on the hazardous of Lifestyle Diseases.
- Talks by experts also may be organised in the institution.
- Conduct quiz programme in a competitive way to make awareness about Lifestyle Diseases.
- Exhibition, Symposiums and seminars are to be conducted regularly with fixed interval.

Teachers have a great impact on society as they interact with young and growing minds that are easily influenced by their teachers views. They also play a significant role in generating awareness among students of any

issue of concern. More over teachers can provide a vital link in the delivery of knowledge about Lifestyle Diseases and its associated problems and their solutions. So only an experienced well knowledge- equipped teacher can make the younger generation aware of the causes and preventive measures of these types of drastic Lifestyle Diseases. So it is very essential that a prospective teacher should him/ her self be fully aware of Lifestyle Diseases problems and the activities related to it. Every teacher has to internalize a change in their role from “giver of knowledge” to one of “facilitator in the learning process”.

Suggestions for further Research

- The same study can be conducted among higher secondary school students and college students.
- The same study can be replicated to professional college students.
- The same study can be conducted among in service teachers

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APPENDICES

APPENDIX I
FAROOK TRAINING COLLEGE
KOZHIKODE

AWARENESS TEST ON LIFESTYLE DISEASES

Mr. Abdul Basheer. U

Amrutha Raj

Associate Professor

M.Ed student

Farook Training College

Farook training college

Name of the student teacher : Male/Female

Name of the Institution :

Subject of study : Science/Commerce/Humanities

Place of Residence : Rural/Urban

Occupation of Father :

Occupation of mother :

Educational Qualification :

SSLC/below
SSLC

Plus two

Degree

P.G

Professional

Father

Mother

Annual income

	Below 50000	50000- 2Lakhs	2-3.5 Lakhs	3.5-5 Lakhs	Above 5 Lakhs
Father					
Mother					

APPENDIX II
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KOZHIKODE

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Associate Professor

Farook Training College

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Occupation of mother :

Educational Qualification :

	SSLC/below SSLC	Plus two	Degree	P.G	Professional
Father					
Mother					

Annual income

	Below 50000	50000- 2Lakhs	2-3.5 Lakhs	3.5-5 Lakhs	Above 5 Lakhs
Father					
Mother					

Instructions:

The following questions for measuring your knowledge and awareness on Lifestyle Diseases. Each question has four options (a,b,c,d). Select the correct answer and mark it in a given box. Answer all the questions.

1. Which organ controls blood glucose levels?
a) Liver b) Stomach
c) Small intestine d) Heart
2. Lifestyle Diseases means -----
a) Hereditary diseases
b) Diseases prevented through Lifestyle
c) Deficiency diseases d) Communicable Diseases
3. The diseases caused by extreme mental tension....
a) Bronchitis b) Arthritis
c) Anemia d) Depression
- 4) Which among the following food item increases blood sugar level?
a) Sweets b) Wheat c) Maize d) Fish
- 5) Which Disease is known as silent killer?
a) Asthma b) Blood pressure
c) Hernia d) Tuberculosis
- 6) Study of cancer is known as

- a) Ophthalmology b) Oncology
c) Osteology d) Odontology
- 7) The symptoms of heart attack is
- a) Chest pain b) Fatigue
c) Weakness d) All of the above
- 8) What is the normal pressure level of healthy person?
- a) 120-100mm/Hg b) 120-80 mm/Hg
c) 140-190 mm/Hg d) 120-90 mm/Hg
- 9) In which of the following ways smoking harms the cardio vascular system?
- a) It reduces the H.D.L levels
b) It reduces the amount of oxygen available to the heart
c) It reduces W B C Count in the Blood
d) None of the above
- 10) Which among the following factor increases blood pressure?
- a) Stress b) Sleep
c) Yoga d) Exercise
- 11) Which diseases results in the loss of elasticity of blood vessels?
- a) Blood pressure b) Diabetes
c) Haemophilia d) Heart attack
- 12) World Diabetes day?
- a) November -7 b) October- 15
c) November -14 d) October- 17

13) Which is the useful cholesterol for Human body?

a) H.D.L b) L.D.L

c) V.L.D.L d) Triglyceride

14) The state that B.M.I exceeds 30 is known as

a) Obesity b) Cholesterol

c) Cancer d) Stroke

- 15) Which of the following gives relief from mental tension?
- a) Better friend ship b) Positive attitude towards life
- c) Realistic approach d) All of the above
- 16) Uterine cancer test?
- a) H.B test b) Pap smear test
- c) V.D.R.L d) Dick test
- 17) The person whose Cholesterol level is above 240, should avoid...
- a) The oily food
- b) The food prepared in steam
- c) The food prepared in direct fire
- d) the uncooked food
- 18) Which disease results from abnormal increase in total count of W B C?
- a) Leukaemia b) Sickle cell anemia
- c) Anemia d) A I D S
- 19) Which surgery is performed to save a person from Heart attack?
- a) Neuro Surgery b) Bypass surgery
- c) Plastic Surgery d) Endocrine Surgery
- 20) Which device is used to measure Blood pressure?
- a) Barometer b) Anemometer
- c) Hygrometer d) Sphygmomanometer
- 21) The solution used to detect sugar content in urine?
- a) Glucose solution b) sulphate solution

c) H.C.L solution d) Benedict solution

- 22) The condition in which blood glucose is excreted through urine due to the deficiency of insulin?
- a) Diabetes b) Haemophilia
c) Hernia d) Kidney diseases
- 23) Which among the following the food item helps to prevent Heart attack?
- a) Food containing fiber b) Food containing fat
c) Food containing glucose
d) Food containing calcium
- 24) World health day is.....
- a) October -1 b) October -7
c) April-7 d) April-11
- 25) Which part of the brain is affected by alcohol?
- a) Cerebellum b) Hypothalamus
c) Cerebrum d) Medulla oblongata
- 26) Which among the following disease occurs as a result of smoking?
- a) Lung cancer b) Psoriasis
c) Hepatitis d) Cholera
- 27) What is the normal cholesterol level?
- a) Below 200 milligram decilitre
b) Below 100 milligram decilitre
c) Below 180 milligram decilitre
d) Below 250 milligram decilitre
- 28) Cancer Disease detection test?

- a) Biopsy test b) Mando test
- c) Histamine test d) Dick test

- 29) Which among the following is the systolic pressure of the person who suffers low blood pressure?
- a) 100 mm /Hg b) 120 mm /Hg
c) 90 mm /Hg d) 110 mm /Hg
- 30) The condition that which the cholesterol is deposited in blood vessels?
- a) Arteriosclerosis b) Arthritis
c) Actino mycosis d) Agro phobia
- 31) Which country has the highest number of diabetic patients in the world?
- a) India b) Russia
c) China d) France
- 32) Which among the following are not the symptoms of depression?
- a) Frustration b) Laziness
c) Helplessness d) Optimism
- 33) The organ which is not affected by tumour is.....
- a) Heart b) Brain
c) Liver d) Skin
- 34) The condition of excess growth of tissues in brain.....
- a) Alzheimer's b) Brain tumour
c) Marasmus d) Meningitis
- 35) Which is the preventive action to save the life of a person suffering from kidney trouble?
- a) Dialysis b) Catalysis
c) Paralysis d) Homeostasis

- 36) Which of the following is an allergic disease?
- a) Cancer b) Asthma
c) Heart attack d) Tetanus
- 37) Which isotope is used for the treatment of cancer?
- a) Cobalt-60 b) Uranium-238
c) Thorium -232 d) Carbon-14
- 38) The change that takes place due to depression in a person?
- a) Hope b) Hormonal variation
c) Enthusiasm d) Courage
- 39) Which of the following disease occurs due to the overconsumption of salt in food?
- a) Diabetes b) Blood pressure
c) Anemia d) Ulcer
- 40) Breast cancer detection test?
- a) Dope test b) Manto test
c) Mammography d) Bilirubin
- 41) The serious condition that happens as a result of the interruption and retardation of the functioning of brain is called.....
- a) Meningitis b) Asthma
c) Stroke d) Myopia
- 42) Which lifestyle should be adopted to prevent cancer?
- a) Avoid smoking b) Avoid u-v ray exposure
c) Limit alcohol intake d) All of the above
- 43) Obesity is detected by.....

- a) Measuring body weight
- b) Calculating B.M.I
- c) Measuring body height
- d) Measuring fat deposit ratio

- 44) Which diseases results from excess functioning of thyroid?
- a) Depression b) Heart attack
c) Diabetes d) Hyper metropia
- 45) Excessive alcoholic consumption causes.....
- a) Liver cirrhosis b) Botulism
c) Syphilis d) Epizootic
- 46) The organ that affects Diabetes....
- a) Pituitary gland b) Pancreas
c) Thyroid gland d) Adrenalin Gland
- 47) Stent treatment is related to which organ?
- a) Heart b) Brain c) Liver d) Kidney
- 48) Which among the following leads to obesity?
- a) Marasmus b) Cancer c) H.I.V d) Stress
- 49) Which diseases are caused by deficiency of A.D.H?
- a) Diabetes incipidus b) Brain attack
c) Cholesterol d) Osteoporosis
- 50) When insulin production decreases, Blood glucose level
- a) Increases b) Decreases c) No change d) Zero
- 5 1) The abbreviation of U.R.R
- a) Urea reduction ratio
b) Urgent radiation reserve
c) Universal rural route
d) U.R. rad

- 52) From which plant, Vincristin the medicine of blood sugar is extracted?
- a) Jamaican pepper b) Phyllanthus
c) Vinca rosea d) Black mulberry
- 53) Which among the following destructs the kidney tissues?
- a) Nephrons b) Nephrotoxin
c) Antibodies d) Enterotoxins
- 54) Which factor in the blood helps to detect heart diseases?
- a) Low L.D.L cholesterol level
b) High H.D.L cholesterol level
c) High homocysteine level
d) Low triglyceride level
- 55) Which medicine helps to control blood pressure?
- a) Digitalis b) Reserpin
c) Renin d) Aspirin
- 56) The disease which is caused by cerebral thrombosis and cerebral haemorrhage...
- a) Stroke b) Heart attack
c) Arteriosclerosis d) Asthma
- 57) Which test is used for the diagnosis of heart related diseases?
- a) E.C.G b) E.E.G c) E.M.G d) E.O.G

APPENDIX III

SCORING KEY

Item No:	Response
1	a
2	b
3	d
4	a
5	b
6	b
7	d
8	b
9	b
10	a
11	a
12	c
13	a
14	a
15	d
16	b
17	a
18	a
19	b
20	d
21	d
22	a
23	a
24	c
25	a
26	a
27	a

Item No:	Response
30	a
31	a
32	d
33	a
34	b
35	a
36	b
37	a
38	b
39	b
40	c
41	c
42	d
43	b
44	a
45	a
46	b
47	a
48	d
49	a
50	a
51	a
52	c
53	b
54	c
55	b
56	a

28	a	57	a
29	c		

APPENDIX IV

List of institution from where Data collected

- 1 Calicut university teacher education
Centre ,Calicut
- 2 Calicut university teacher education
Centre , Vatakara
- 3 Calicut university teacher education
Centre, Malapuram
- 4 Govt. College of teacher education , Calicut
- 5 M.C.T training college , Malappuram
- 6 Farook training college , Kozhikode
- 7 A.W.H college of teacher education, Cheruvannur
- 8 Salaphi college of teacher education, Meppayur

- 9 K.E.T college of teacher education, Ulliyeri
- 10 Sree narayana college of teacher education , Chellanur

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KOZHIKODE

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Amrutha Raj

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Name of the Institution:

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a) E.C.G b) E.E.G c) E.M.G d) E.O.G

APPENDIX III

Scoring Key

Item no:	Response
1	a
2	b
3	d
4	a
5	b
6	b
7	d
8	b
9	b
10	a
11	a
12	c

13	a
14	a
15	d
16	b
17	a
18	a
19	b
20	d
21	d
22	a
23	a
24	c
25	a
26	a
27	a

28	a
29	c
30	a
31	a
32	d
33	a
34	b
35	a
36	b
37	a
38	b
39	b
40	c
41	c
42	d

43	b
44	a
45	a
46	b
47	a
48	d
49	a
50	a
51	a
52	c
53	b
54	c
55	b
56	a
57	a

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List of institution from where Data collected

1	Calicut university teacher education Centre ,Calicut	
2	Calicut university teacher education Centre , Vatakara	
3	Calicut university teacher education Centre, Malapuram	
4	Govt. College of teacher education , Calicut	
5	M.C.T training college , Malappuram	
6	Farook training college , Kozhikode	
7	A.W.H college of teacher education, Cheruvannur	
8	Salaphi college of teacher education, Meppayur	

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