**Final-Term Assignment**

 **DPT 6th semester**

**Course Title: Teaching Methodology and community medicine**

**Instructor: Dr. M. Shahzeb khan (PT)**

 **Marks: 50**

**Note:**

**Attempt all questions, all questions carry equal marks.**

**HIRA HAMAYUN**

**13936**

**DPT 6TH SEMESTER**

**Q1:** (A) What is difference between Prevention, Control, Elimination and Eradication? Explain with Example

**CONCEPT OF PREVENTION**

**ACTION**

DEFINITION;

To reduce or eliminate the onset cause, complications or recurrence diseases.

* Prevention is that action in which we reduce, eliminate the onset, cause or complication and recurrence of a disease
* Through activities we reduce the harmful or we minimise the harmful that occur in the body

For prevention of an illness are disability requires

**IDENTIFICATION**

Identification we will find the risk factors and protective factors

Risk factor is in which the disease is caused protective factors are those which we protect our self

**STRATEGIES**

We make strategies to decrease the risk factors an increase the protective factors. Through protective factors we safe our self from a disease and risk factors can lead to a disease

**LEVELS OF PREVENTION**

There are four levels of prevention

. Primordial prevention

. Primary prevention

. Secondary prevention

. Tertiary prevention

**PRIMARY PREVENTION**

When we do incidence of a disease in the population such as vaccine.

. We reduce the causes or eliminate the causes

. We control the exposure to risk factors

. Increase the protective factors

**PRIMARY PREVENTION INCLUDE**

health education

specific protection

For example coronavirus we do prevention and aware the people through health education and do spray use masks we reduce the incidence of disease

**SECONDARY PREVENTION**

Reduce the progression of disease when a disease is caused we do detection of the disease as soon as possible at asymptomatic stage and in early intervention to safe the people

. Early diagnosis

. Treatment

**TERTIARY PREVENTION**

When a disease is cause we go to tertiary prevention in when there is no disease we go to primary let suppose a person is having coronavirus we will do prevention of the complications

. Disability limitations (spinal cord injury)

.Rehabilitation

**PRIMORDIAL PREVENTION**

If a disease factor are social and environmental and we do prevention of that disease example Corona virus is in China and that time we do social and environmental factors.

In primordial we do prevention if we come to know that our neighbour country is affected by disease and we do prevention for that

**CONCEPT OF CONTROL.**

Action of disease incidence prevalence morbidity or mortality through local acceptable level We do continued intervention to reduce the disease example coronavirus

**CONCEPT OF ELIMINATION**

. Reduction to zero when incidents of a specific disease come to zero it is known as elimination

As we heard that coronavirus is controlled in China

 Elimination of poliovirus

Measles from large area

**CONCEPT OF ERADICATION**

. Permanent reduction to zero

. When worldwide the incidence of a disease is zero it is eradication

. When the coronavirus worldwide reach to zero we will say coronavirus is eradication

 (B) Write down different stages of Health Education

**HEALTH EDUCATION**

Health education is a process that inform and motivate and help people to adopt and maintain healthy

 Practices and lifestyle

Health education is profession of educating people about health and make their life healthy and environmental changes so that they live a healthy life and also do researches so do the health education of people

**HEALTH PROMOTION**

 Process of enabling people to increase control over and improve their health

. To aware people about health give them health education so that they could improve their health

 if you want to promote health in our community for that it is important to give the health education

**STAGES OF HEALTH EDUCATION**

The following stages of health education.

 **STAGE OF SENSITIZATION**

 People ask sensitized through positive health message regarding the issue example when day was saying coronavirus is coming to Pakistan through social media

**STAGE OF PUBLICITY**

Social media used to inform people about the serious issue and give them health education

**STAGE OF EDUCATION**

we do health education and those people who are disinterested people and illiterate people then we talk to their leader to them to their health education it can be Imam vadera and school master. The main aim of the health education is to improve health and prevent spread of disease

**STAGE OF ATTITUDE CHANGES**

When health education is done then the attitude of people changes to toward the disease and take good care of them

**STAGE OF MOTIVATION**

We motivate people to think about their health example use mask wash hand avoid crowd areas once we motivate the people then all family health is safe and good

**STAGE OF COMMUNITY TRANSFORMATION (social changes)**

After all the above stages have been successfully completed and applied to all community result will be the healthy community

**Q2:** What is Ethics? Write down Types and Principals of Ethics.

**Ethics.**

Ethics is a system of moral principles. Moral principles means right and wrong. It tells us about right and wrong. It effect our life in decision making. If we know ethics we will right decision and if we don't know then we will take wrong. In casual conversation we can inter change it. There is a distinction between them in philosophy. Ethics and morals both are related to each other it tells about right and wrong. Eg in our profession they tell us to treat all patients equal respect them. We learn it from external source. Morals refer to individuals own decisions and have own rules and principles.

Type of ethics : There are 4 types of ethics.

**Medical ethics**: primary physician cantered. In medical ethics rules are connected with physician. Like mbbs, bds are related to medical ethics. Eg mbbs, Bds prevention and treatment.

**Health care and ethics**: It deals with issues of nurses and other health care provider. Eg allied health science,

 **Bioethics:** Bio life Ethics principles. Ethical issues and decision making which is with living organisms. The ethical issues in health care, medicine, research, biotechnology and environment comes in bioethics. Eg organ donation, genetic research, transplantation. Paramedics, psychologist.

**Clinical medical ethics** : Aim is to improve patient health and focus on the patient outcomes. And safe our patient from any side effects. It also tells to take good decision for patient in individual cases

Example: Caring for the patient. Tell them the truth that what is he/she suffering from. Protecting patient confidently. Assessing patient decision capacity

**Principles**:

**Autonomy**: Respect a person right to make their own decisions eg when a patient come respect them value their decision. •you have to tell people how to take your decision and help them in taking decision. •support them in their choices

•Do not force them to do what you want it's their choice weather they want to do surgery or physiotherapy

•informed consent they will take their decision by their own.

**Beneficence:** The aim is to give benefits •improve health •not to harm •protect their right •provide safe and supportive environment.

**Non malefincence** (do not harm) Do not impose harm on people. Do not cause pain and suffering. Do not cause offence. Do not kill. Do not deprive people.

**Justice:** Treating people fairly eg poor patient and rich give them same important. No discrimination give respect. Respect for people rights. Respect for law.

**Nuremberg code**:

It was developed after world war 2.

No expirment on the poor people and prisoners.

If you want to do expirment do it in proper way.

Informed consent absence of corecion.

Give beneficence towards study participants.

**Q3:** What are Genetic Abnormalities? Write down different types of Genetic Abnormalities

**Genetics:**

Genetics is branch of science concerned with the study of genes, genetic variation and heredity The heredity which is transfer from one generation to another. Dysfunction genes or gene mutation and cause illness and transfer from parent to children. Some people are pron to disease like cancer, diabetes cardiovascular disease and mental disorder. These are transmit to genration to genration. Type of genetic changes: In human body there 2000 to 25000 different genes. Genes are located on chromosomes and each cell have 46 chromosomes and 23pair.every gene have specific function. When there is problem in gene or chromosomes that effect the body and cause health problems in the body There are two main types of genetic changes •chromosomal abnormalities •single gene defect

**Chromosomal abnormalities**: Chromosomal abnormalities can be inherited from parents and it can also be from family history the following are the common ANEUPLOIDY : Aneuploidy more or fewer chromosomes than the normal number. As normal number of chromosomes in human body is 46 .if it is 47it also come in Aneuploidy and if it is 45 it also come in Aneuploidy.

Example Down syndrome: (trisomy 21) it is a condition in which a person has an extra chromosome. Cell contain 3 copies of the 21st chromosomes

**Tuner syndrome**: Tuner syndrome is a condition which effect only girls and women. In which a sex chromosomes is missing or partially missing. There are 45 chromosomes instead of 46chromosomes (x chromosomes)

**Deletion**: It is also known as Digeorge syndrome. In which small part of chromosomes is missing.

**Inversion:** When the section of DNA breaks from chromosomes during the reproductive process and attached to the chromosomes in reverse order. Which change the genetic code.

Ring: When the chromosomes is divided and the ends are attached which look like ring.

**Translocation**: In translocation when division occur the segment again rearrange within the same chromosomes but are not attracted on it's specific area and they change there place.

**Mosaicism:** In which extra chromosome is present in the cell but the genetic material is different from its cell

**Single gene defect**: It have higher risk of being passed to the offspring as compared to chromosomal abnormalities.

**Dominant**: When the parent is having any disorder and his /her one gene is abnormal and the other is healthy it have chance of inheriting it.

**Recessive:** When both the parent have abnormal genes. Both are the carrier baby have chance of having the disorder. 1/4 E. G sickle cell anaemia

**X-linked:** In x linked disease male are more effected they have single copy of x chromosomes. Eg hemophilia.

**Q4**: (A) What is Diabetes? Write down different types of Diabetes mellitus

**DIABETES**

Diabetes is a chronic disease that occurs either when the pancreas does not produce enough insulin or when the body cannot effectively use the insulin it produces.

**Insulin** is a hormone made by the pancreas that acts like a key to let glucose from the food we eat pass from the blood stream into the cells in the body to produce energy. All carbohydrate foods are broken down into glucose in the blood. Insulin helps glucose get into the cells.

* WHO defines Diabetes as Fasting Blood Glucose more than 126 mg/dl on one single occasion and if we check the random blood glucose of any person more than two times and the glucose level is 200mg/dl or more than we can assume that person is diabetic.

**DIABETES MELLITUS;**

**TYPES OF DIABETES MELLITUS**

There are two types of diabetes mellitus TYPE 1 and TYPE 2

**TYPE 1;**

This is an insulin dependent diabetes and also known as juvenile or childhood-onset, is a chronic condition in which the pancreas produces little or no insulin type 1 diabetes usually appears during childhood or adolescence, it can develop in adults. And its cause in unknown.

Type 1 diabetes symptoms

Excessive excretion of urine (polyuria)

Thirst (polydipsia),

Constant hunger,

Weight loss,

Vision changes and fatigue

**Type 2 diabetes**

Type 2 diabetes used to be known as adult-onset diabetes or non-insulin-dependent.

With type 2 diabetes, your body either resists the effects of insulin or doesn't produce enough insulin to maintain normal glucose levels. Type 2 diabetes comprises 90% of people with diabetes around the world

Signs and symptoms are similar to those of type 1 diabetes.

Increased thirst

Frequent urination

Increased hunger

Blurred vision

Slow-healing sores

As we know this type of diabetes known as adult diabetes but today more children are being diagnosed with the disorder, probably due to the rise in childhood obesity, smoking, inactivity

The overall prevalence is 10-15% of the population, more than 85% of whom have type 2 diabetes and according to WHO in 2030 the diabetes will be the 7th leading cause of death

**COMMON CONSEQUENCES OF DIABETES**

Kidney damage

Circulatory system

Central nervous system

Reproductive system

Diabetes can damage the heart

Diabetic retinopathy

**RISK FACTORS OF TYPE 2 DIABETES**

High blood pressure

High fat cholesterol level

Smoking

Over weight

Sedentary life style

 (B) What is Difference between Diabetes Mellitus and Diabetes Insipidus?

Difference between Diabetes Mellitus and Diabetes Insipidus

|  |  |
| --- | --- |
| Diabetes Insipidus | Diabetes Mellitus |
| Treatment is depending on the cause, usually desmopressin or vasmopressin pills are used, or self treatment, or a low salt diet could be done. | Insulin and lifestyle management |
| There are many causes and types of this condition, usually it is caused by a hormone imbalance. | Type 1 - Autoimmune Disease; Type 2 - Genetics, lifestyle, infection |
| Frequent/excessive urination, excessive thirst, and headaches | High blood sugar, excessive urination, increased thirst, increased hunger. |
| Incidence 3 in 100,000 | I 770 in 100,000 ncidence  |
| No effect on life expectancy | Up to 10 years shorter life expectancy |

 (C) How will you prevent yourself from Diabetes Mellitus?

**PREVENTION**

1. **Check your risk of diabetes.**
2. **Manage your weight.**
3. **Exercise regularly.**
4. **Eat a balanced, healthy diet.**
5. **Limit takeaway and processed foods.**
6. **Limit your alcohol intake**
7. **Quit smoking.**
8. **Control your blood pressure.**
9. **Reduce your risk of cardiovascular disease.**
10. **See your doctor for regular check-ups.**

**Q5:** (A) What is Mental Disorder? Write different types of Mental Disorder

Mental Disorder

A mental disorder or psychiatric disorder is mental or behavioural pattern or anomaly that causes distress or disability, and which is developmentally or socially normative.

**Types of Mental Illness**

**Anxiety Disorders;**

Feeling anxious is normal but in some people their anxiety level is high they feel fear when they perform any task and also show physical signs of anxiety or nervousness, such as a rapid heartbeat and sweating.

**Eating disorders;**

In this disorder some people gets over conscious about their diet like am eating a lot I getting fat in this they involve in extreme emotions, attitudes, and behaviours about weight and food.

**Mood disorders;**

These disorders involve persistent feelings of sadness or periods of feeling overly happy in this disorder the person sometimes gets too happy or sad his/her mood changes time to time.

**Psychotic disorders*;***

**Psychotic disorders** are severe mental **disorders** that cause abnormal thinking and perceptions. People with psychoses lose touch with reality. Two of the main symptoms are delusions and hallucinations

**Impulse control and addiction disorders;**

In this disorder the person cannot control some activity for e.g. Pyromania, kleptomania

include addictions to alcohol or drugs, eating disorders, compulsive gambling, paraphilia sexual fantasies and behaviours involving non-human objects, suffering, humiliation or children, compulsive hair pulling, stealing, fire setting

**Personality disorders;**

People with personality disorders have extreme and inflexible personality traits that are distressing to the person and/or cause problems in work, school, or social relationships

**Adjustment disorder;**

Here is a group of symptoms in this disorder the person cannot adjust in some condition like in stressful situation, feeling sad and become hopeless

**Dissociative disorders**;

People with these disorders suffer severe disturbances or changes in memory, consciousness, and general awareness of themselves and their surroundings.

B) Why we need Health Information System? Explain it

**Health Information System**

A set of components and procedures organized with the object of generating information which will improve health care management decision at all levels of the health system

The aim of health care system is to provide better care for the patient. And help them to adopt Health care system increases patient safety and decrease medical errors. Good health.

**Patient centered information**

systems manage the patient information such as record appointment scheduling

**Clinical information**

 It include data that is collected from the patient and management planning

**Laboratory:** samples are analysed and the results are store in computer

**Pharmacy information system**

It include function such as keeping patient information about medication record

**Hospital information systems**

 Support health care at the operational. Facilities management. Medical application.

**Telemedicine**

Is the exchange of medical information from one location to another using electronic communication which improve patient health status