

The global epidemic of overweight health essay

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1. INTRODUCTION

1.1 BACKGROUND OF THE STUDY

The global epidemic of overweight and obesity - "globesity" - is rapidly becoming a major public health problem in many parts of the world.

Paradoxically coexisting with under nutrition in developing countries, the increasing prevalence of overweight and obesity is associated with many diet-related chronic diseases including diabetes mellitus, cardiovascular disease, stroke, hypertension and certain cancers. Of the estimated 57

million global deaths in 2008, 36 million(63%) were due to Non

Communicable Diseases'. Population growth had increased in total number of middle aged and older adults with a corresponding increase in number of

deaths caused by Non Communicable Diseases. It is projected that the

annual number of deaths due to CardioVascular Disease will increase from

17 million in 2008 to 25 million in 2030. As a result of such trends, the total number of annual NonCommunicableDisease deaths is projected to reach 55

million by 2030, whereas annual infections disease deaths are projected to

decline over the next 20 years. The probability of dying from a Non

Communicable Disease between ages of 30-70 years is highest in Sub-

Saharan Africa, Eastern Europe and parts of Asia, 48% of Non Communicable

Disease deaths in low and middle income countries are established to occur

in people under age of 70, 26% among high income countries with a global

average of 44%.

Non-communicable Risk Factors:

Behavioural risk factors are assessed with four key metabolic and/or

physiological changes-Raised blood Pressure-Increased weight leading to

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obesity-Hyperglycemia and-Hyperlipidemia. These changes have multiple effects. Physical inactivity-6% and being overweight and obese 5%.

WORLDWIDE SCENARIO:

Worldwide 2. 8 million people die each year as a result of being overweight or obese. Being overweight or obese can lead to adverse metabolic effects on blood pressure, cholesterol and triglyceride levels and can result in diabetics. Being overweight or obese thus increases the risk of Chronic Heart Disease, Ischaemic Heart Disease, Stroke, Type II DM and a number of common cancers. Between 1980 and 2008, the worldwide prevalence of obesity ($BMI \geq 30 \text{Kg/m}^2$) almost doubled. By 2008, 10% men and 14% of women in the world were obese, compared with 5% of men and 8% of women in 1980. As a result, an estimated half a billion men and women over the age of 20 were estimated to be obese in 2008. In all WHO regions, women were more likely to be obese than men. The prevalence of overweight and obese individuals was highest in the WHO region of the Americas (62% overweight in both sexes and 26% obese) In India about 1. 3% of male and 2. 5% of female are obese adults aged ≥ 20 years.

(WHO statistics, 2012)

Obesity in Australia: a need for urgent action

It is difficult to set targets for obesity prevalence, as no country has been successful in reversing the trend of rising levels of overweight and obesity, and few jurisdictions have set targets for specific reductions in the prevalence of obesity. Importantly, it is not only reductions in the prevalence and incidence of overweight and obesity that should be the target of health

reforms. Population health measures such as obesity prevalence are affected by many factors, and it takes many years to have an impact on personal behaviours and health outcomes. In the short term, therefore, policy reforms should at least aim to reduce the rate of increase in obesity. In the United Kingdom, for example, the comprehensive cross-government obesity strategy 'Healthy Weight, Healthy Lives' aims to reduce childhood overweight and obesity to 2000 levels by 2020'.

(BMI public health 2009 Dec19; 9-475)

The US Centers for Disease Control and Prevention (CDC) commissioned a dynamic simulation model of diabetes prevalence and complications, for use in designing and evaluating intervention strategies. As part of the study, the impact of three scenarios on diabetes rates to 2050 were modeled. The three scenarios were: enhanced clinical management increased management of pre-diabetes reduced obesity prevalence (primary prevention). In most of the Asian countries the prevalence of overweight and obesity has increased many folds in the past few decades and the magnitude varies between countries. South East Asia and Western Pacific region are currently facing an epidemic of diseases associated with obesity such as diabetes and CVD. India has the highest number of people with diabetes in the world and China occupies the second position.

Am. J. Clin. Nutr. (2010)73 (6): 1086–93.**Comparison of prevalence of adult obesity in Asian countries versus the USA.**

This study showed that the prevalence of overweight and obesity were 22.9% and 10.5% for males and 20.3% and 13.2% for females, respectively, using the Taiwanese definition (BMI—24—<27 kg/m² and > 27 kg/m², resp.).

Public Health (2009) .**SOUTH-EAST ASIAN SCENARIO:**

In this region, 1.7% of male and 3.7% of female are overweight and obese. The prevalence of overweight and obese individuals is lowest in the WHO South-East Asia Region, WHO East Mediterranean Region and WHO region of the Americas over 50% of women were overweight. In all the 3 regions, approximately half of these women were obese (23%, 24% and 29% resp).

(WHO statistics, 2012)

In many developing regions such as South Asia and Asia-Pacific regions, both obesity and undernutrition coexist mainly due to wide socioeconomic disparities. Among adults, prevalence of underweight was 13.2% while the prevalence of overweight was 20.2%. The relationship between obesity and poverty is complex. In world's poorest countries, poverty is associated with malnutrition and underweight whereas, in middle income countries, it is associated with an increased risk of obesity. Some countries face a paradox of families in which children are underweight and the adults are overweight. This has been attributed to the "thrifty phenotype" in which a low birth weight due to poor intrauterine growth followed by a rapid childhood weight

gain promotes development of obesity and associated metabolic complications. The pandemic of obesity has been restricted to developed, high-income countries until few decades ago, but recently, it has penetrated even the poorest of nations in the world. Asia has undergone considerable socioeconomic transition in the last three decades which has resulted in increased availability of food, better transport facilities, and better health care facilities. The changing trend was seen first in the urban populations and in the recent years, with improving socioeconomic scenario in the rural areas, the changes were seen even among the urbanizing rural populations. The recent epidemiological data among urban and semi urban southern Indian populations, illustrates the changing scenario.

The National Nutrition and Healthy Survey (2008).

Currently, overnutrition is common even in the developing countries.

Changing lifestyle has tilted the energy balance towards excess storage of body fat in the adipose tissue, causing escalating rates of overweight and obesity. There is also a strong genetic component for obesity.

Shoelson SE, Herrero L, Naaz A (May 2009).

Morbid obesity is an irreversible stage of obesity, and any weight loss through medication and crash dieting is temporary, explains Dr Pradeep Chowbey, Director, Max Institute of Minimal Access, Metabolic and Bariatric Surgery. The health risks of morbid obesity are many. " Anyone who is morbidly obese is inherently unhealthy. They have a greater chance of complications with any illness — whether it's treated medically or surgically," says Dr D'cruz. Other common health risks associated with obesity include

diabetes or 'diabesity', high blood pressure, heart problems and liver failure (THE HINDU, 2011)

1. 2 SIGNIFICANCE AND NEED FOR THE STUDY

Obesity is a substantial public health crisis in INDIA and in the rest of the industrialized world. The prevalence is increasing rapidly in numerous industrialized nations worldwide. This growing rate represents a pandemic that needs urgent attention if obesity's potential toll on morbidity, mortality, and economics is to be avoided. Research into the complex physiology of obesity may aid in avoiding this impact. Obesity has reached epidemic proportions in India in the 21st century, with morbid obesity affecting 5% of the country's population. India is following a trend of other developing countries that are steadily becoming more obese. Unhealthy, processed food has become much more accessible following India's continued integration in global food markets. Indians are genetically susceptible to weight accumulation especially around the waist. The Department of Public Health Sciences in collaboration with the Department of Family Medicine has created a Program for Obesity Education and Research at Loyola University Medical Center. The overall goal is to increase obesity education and research for local community residents and health professionals. This school program aims to conduct community-based education on nutrition and physical activity, foster training for clinicians, residents, and medical students in obesity detection and treatment, provide opportunities for epidemiologic and translational research in the field of obesity.

Loyola University Chicago Stritch School of Medicine

Sharma (2008) had conducted a study to assess the growth pattern and prevalence of obesity among affluent school children in Delhi. The study revealed the prevalence of obesity is rising among children because of their change in lifestyle. Children born with birth weight of $>$ or $=$ 3 kg tend to have higher BMI in their adolescent years and may be consequently in their adult years. Nutrition education program can play an important part in reducing the incidence of overweight/obesity and its associated complications. Singh (2008) had conducted a study to assess the prevalence of overweight and obesity among urban population in India. The study sample of 6, 940 subjects aged 25 years and above were randomly selected from the cities of Moradabad, Trivandrum, Calcutta, Nagpur and Bombay. The study revealed that the highest of obesity (7. 8%) and overweight (36. 9%) was found among subjects aged 35-44 years in both sexes. Aramepola. C(2009) conducted a study to assess the gender-specific prevalence and determinants of Abdominal Obesity(AO) within the population and lifestyle diversity of an urban district in SriLanka. Prevalence of AO was estimated in a cross-sectional study. Demographic, socio-economic and Lifestyle factors were assessed in gender-specific logistic regression models to identify determinants of AO. Prevalence of AO was 44. 7% in females and 25. 7% in males. Hajjan-Tilaki, K. O (2009) conducted a study to determine the prevalence rate of obesity, overweight, central obesity and their associated factors in the North of Iran. A population based cross sectional study with a sample of 1800 men and 1800 women were conducted. This study indicated an increased rate of overweight and obesity in the North population of Iran. Therefore a community-based multiple strategies are required to combat <https://assignbuster.com/the-global-epidemic-of-overweight-health-essay/>

with increasing rate of obesity and its subsequent complications such as Diabetes, CAD, HTN and osteoarthritis. Kurian. C.(2010) conducted a study that BMI was significantly correlated with physical activity, a ratio value of the study activity. In India where large proportion of the population have BMI <18.5 and above 25kg/m², considered the influence of body weight and BMI on physical activity ratio became important in accurately determining total energy expenditure. Yoon. H (2010) conducted a study to investigate the attitudes and beliefs on Bangladeshi workers about health and exercise. A survey method was used and it was found that 40% of the subjects were obese and the remaining 60% were overweight but most of them were not aware about this and they would not exercise voluntarily. Bangladeshi women workers took less effort to reduce their weight because of their cultural attitudes and beliefs. More efforts were to be taken to encourage various type of exercises that would be more appropriate for this ethnic group. Hence the investigator analyses the need for obesity education program to health educate the public and since the investigator has found most of the IT people obese due to the work pattern, the investigator has found the need to do the study in an IT setting. The above studies show the disease load of obesity and the interventions that would help people with obesity. Hence the investigator specializing in Community Health Nursing has witnessed the magnitude of urbanization which is taking place in the urban community and growing health problem among people due to urbanization . The most health link among employees who are working at IT sector is obesity. Hence the investigator having witnessed many IT employees with obesity wanted to test the effectiveness of worksite based

obesity education program on knowledge and attitude regarding obesity among employees at a selected work setting.

1.3 STATEMENT OF THE PROBLEM

A study to assess the effectiveness of worksite based obesity education program on knowledge and attitude regarding obesity among employees at a selected work setting, Chennai.

1.4 OBJECTIVES

To assess the pretest and posttest level of knowledge and attitude regarding obesity among employees at a selected work setting To compare the pretest and posttest level of knowledge and attitude score among employees at a selected work setting. To correlate between the mean differed level of knowledge and attitude score. To associate the knowledge and attitude score with selected demographic variables among employees at a selected work setting.

1.5 OPERATIONAL DEFINITION

Effectiveness

Refers to the outcome of obesity education program on level of knowledge and attitude among the employees in a selected work setting measured using structured knowledge questionnaire and attitude by 4 point likert scale as devised by the investigator.

Worksite Based Obesity Education Program:

Refers to the package of instruction given to the employees regarding obesity through LCD and issuing pamphlets to improve the knowledge of IT

employees on Meaning Risk factors Causes Diagnostic evaluation and complications Management of Diet and Exercise which is done through video show and live demonstration to enhance favourable attitude regarding lifestyle modification on obesity.

Knowledge

Refers to the state of knowing the facts by the employee to answer the questions regarding obesity through structured questionnaire as devised by the investigator in dimensions of Meaning Risk factors Causes Diagnostic evaluation Management (Diet and Exercise) Diet Complications

Attitude

Refers to an expressed belief of the employee to answer the questions regarding obesity through 4 point likert scale as devised by the investigator.

Obesity:

Obesity refers to the employees included in BMI and in the study who have been screened by measuring their height and weight It is $BMI > 25$ which is devised using the formula $BMI = \text{Weight (kg)} / \text{height(m}^2\text{)}$.

Employees

Refers to those people working in the selected organization who are screened by using BMI, who have score > 25 and are identified as overweight and obese.

1. 6 ASSUMPTIONS

Employees may have some knowledge regarding obesity. Obesity education program may enhance increased knowledge regarding obesity Increased

knowledge may enhance positive attitude. Increase knowledge and positive attitude may improve lifestyle modifications.

1. 6 NULL HYPOTHESES

NH1: There is no significant difference between the pretest and posttest of knowledge score and attitude score regarding obesity at $p < 0.05$ level. NH2: There is no significant relationship between level of knowledge score and attitude score regarding obesity at $p < 0.05$ level. NH3: There is no significant association of the mean differed knowledge score and attitude score with selected demographic variables at $p < 0.05$ level.

1. 7 DELIMITATIONS

The study is delimited to a period of 4 weeks. A conceptual framework or model is made up of concepts which are the mental image of a phenomenon. This section deals with conceptual framework adopted for the study. A conceptual framework or model provides the investigator, the guidelines to proceed to attain the objectives of the study based on a theory. It is a schematic representation of the steps, activities and outcome of the study. Imogene King's Goal attainment theory is based on the personnel and interpersonal systems including interaction, perceptions, communication, transaction, stress, growth and development, time and action. Nursing is defined by Imogene King as " A process of human interaction between the nurse and the client whereby each perceives the other and the situation, and through communication they set goals, explore, means and degree on means to achieve goals. According to this theory people meet in some situation, perceive each other, make judgement about the other, take some mental action and react to each other, The next step in the process is <https://assignbuster.com/the-global-epidemic-of-overweight-health-essay/>

interaction and the last is transaction which is dependent upon the achievement of a goal. The investigator adopted King Goal attainment theory as a basis for conceptual framework, which is aimed to assess the effectiveness of Obesity Education Program on IT employees. The six major concepts of the phenomenon is described as follows.

1. PERCEPTION:

Refers to the person's representation of reading, it is universal, highly subjective and unique to each other. It is not observable but it can be inferred. Hence investigator's perception is, the IT employees may have lack of knowledge and attitude on obesity.

2. JUDGEMENT:

The investigator judged that the obesity education program may enhance the knowledge on obesity education program. IT employees too judge that utilization of obesity education program package can enhance the knowledge and attitude on obesity.

3. ACTION:

Investigator implements obesity education program in order to enhance the knowledge and attitude on obesity education program. The IT employees are ready and willing to gain knowledge and attitude and to participate in the study.

4. REACTION:

The investigator and employees set mutual goals. The mutual goal setting was done by obesity education program through structured questionnaire and 4 point likert scale to enhance the knowledge and attitude on obesity.

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5. INTERACTION:

Refers to the verbal and non verbal behaviour of the individual and the goal. Hence the investigator interacts with the IT employees by administering pretest and obesity education program followed by post test.

6. TRANSACTION:

Refers to an observable, purposeful behaviour of individual, interaction with their environment to achieve the desired goal. At this stage the investigator analyzes the level of knowledge of the IT employees in the post test. For the positive outcome i. e., adequate knowledge on obesity need to be enhanced further. For the negative outcome i. e., inadequate knowledge on obesity need to be reinforced for further learning.

1. 8 CONCEPTUAL FRAMEWORK

Based on Imogene King Goal's Attainment Theory.