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"Evaluate the Effectiveness of Selected Nursing Interventions in Prevention of Hypertension."

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Professor Sonal Shukla conducted a departmental study in the years 2021-2022, "This present study aimed to evaluate the effectiveness of selected nursing interventions in prevention of hypertension selected Schools and Colleges, Bokaro city Jharkhand" to meet the needs of community people in the adopted areas by **A.G. College of Nursing Jharkhand.**

This present study was carried out with an aim "To assess the effectiveness of selected nursing interventions in prevention of hypertension on young adult at selected school and colleges, Jharkhand.

INTRODUCTION

Worldwide hypertension is one of the common causes of cardiovascular disease. It is a disorder of major clinical, public health, and economic importance. It is a common cause for visiting physicians all over the world. One good thing about it is that if it is diagnosed at early stage, disease can be managed with lifestyle modifications. But negative thing about it is that person does not experience any obvious symptoms with this disease so most of the time diagnosis occurs at later stage of the disease. In India adolescent and young age population is more, it is a nation of youth. Today average age at which a person may experience a heart attack has come down from 40 years to 30 years. The justice for this scenario in Indian community is today's changing lifestyle. **Herald of health,2020[(1)]**

Hypertension, also known as elevated blood pressure (BP), is a well-recognized risk factor for cardiovascular diseases and chronic kidney disease worldwide. Hypertension also substantially contributes to mortality and disability.[3] Globally, more than 1 billion adults were living with hypertension in 2015, among whom most were in low- and middle-income countries.[7]

Hypertension is an important public-health challenge worldwide. In the Lancet literature was published Dec 31, 2002. The studies reported were sex-specific and age-specific prevalence of hypertension in representative population samples. All data were obtained with a standardized protocol and data-collection form. Overall, 26·4%(95% CI 26·0–26·8%) of the adult population in 2000 had hypertension (26·6% of men [26·0–27·2%] and 26·1% of women [25·5–26·6%]), and 29·2% (28·8–29·7%) were projected to have this condition by 2025 (29·0% of men [28·6–29·4%] and 29·5% of women [29·1–29·9%]). The estimated total number of adults with hypertension in 2000 was 972 million (957–987 million); 333 million (329–336 million) in economically developed countries and 639 million (625–654 million) in economically developing countries. The number of adults with hypertension in 2025 was predicted to increase by about 60% to a total of 1·56 billion (1·54–1·58 billion).

Authentic data is needed about the prevalence of hypertension so that corrective measures are taken to prevent and control the disease. **Patricia M vol.365**[1]

Under different circumstances an individual‘s blood pressure levels change but if it is consistently higher under same situations, the person is at risk of developinghypertension. But one blood pressure reading may not be enough to diagnose hypertension; at least two measurements with accuracy are needed to diagnose it. This disease has lifelong implications on person‘s life.

World Hypertension Day is celebrated by World Hypertension League (WHL) annually on 17 May to spread awareness about hypertension disease, its prevention, detection, and control. The main risk factor to develop cardiovascular disease is high blood pressure. WHD was first inaugurated in May 2005.

The theme for 2023 World hypertension measures your blood pressure accurately, controls it live longer.

J Hancox[3] found in his study that television viewing in childhood and adolescence is associated with overweight, poor fitness, smoking, and raised cholesterol in adulthood. Such studies prove that excessive television watching can develop occurrence of cardiovascular risk factors.

Generally, the context in which an individual lives is of great importance for both his health status and quality of life. It is increasingly recognized that health is maintained andimproved not only through the application of health science, but also through the intelligent lifestyle choices of the individual and society.

Today, approximately 1 billion people worldwide have high blood pressure, and this number is expected to increase to 1.56 billion people by the year 2025. That translates to about 1 out of every 4 adults being afflicted with hypertension. Hypertension is prevalent in developing as well as in developed countries. In India at present 195,785,036 people are suffering from hypertension. **Worldwide epidemic, journal of cardiology**[4]

While high blood pressure is commonly thought of as an "adult problem," teenagers and even younger children can develop high blood pressure. Teenagers in the U.S. now weigh more and exercise less than teens of past generations. As a result, high blood pressure among teens has increased, as well: A large authoritative study showed that high blood pressure in teenagers increased from 1 percent to 5 percent between 1989 and 2002. Onceit was believed that the causes of hypertension in teenagers were some heart or renal problems. But research has shown that this is not true, and teenagers develop high blood pressure in approximately the same proportions as adults. In other words, most cases of high blood pressure in teenagers are classified as primary hypertension. As with adults, the underlying causes of primary hypertension are not entirely understood. Some teenagers appear to inherit the tendency to develop high blood pressure from their parents, while others fall victim to poor lifestyle choices, which result in obesity. Because teenagers with high blood pressure tend to suffer more blood vessel and cardiovascular problems later in life, preventing and controlling high blood pressure is especially important during the adolescent years. **Craig Weber** [5]

NEED OF THE STUDY

Heart disease is amongst the nation‘s leading causes of death and disability. It can affect anyone without regard to age, race, and gender or income level. And as our population ages, these largely preventable conditions are projected to increase. The cause of cardiovascular disease can be reduced by choosing a healthy lifestyle. We have tools to reduce the devastating impact of cardiovascular disease on individuals, their families and nation‘s economy. We can take significant steps towards a heart healthy India through several actions. So early screening, prevention and control of cardiovascular disease is of very much importance.

It is important to realize that teenagers are not just smaller versions of adults. The hormonal changes of adolescence change some of the dynamics that affect high blood pressure risk. For example, eating junk food and not getting enough exercise is not always directly reflected by increasing body weight, yet these things can still affect blood pressure in teenagers. Surges in the sex hormones testosterone and estrogen also play a role in the development of high blood pressure among teenagers. Children are naturally energetic, but without encouragement they may become inactive. These days many children spend more and more time sitting in class, on a school bus, using the computer, playing video games or watching television.

LITERATURE REVIEW-

A literature review is a compilation of resources that provides the groundwork for further study. The overall purpose of a research literature review is to assemble knowledge on a topic.

Hypertension in children and adolescents is an emerging public issue. Hypertension in children exhibits strong correlations with various modifiable and no modifiable factors. Prehypertension is important clinically because it indicates increased risk for hypertension in children and it is also linked to disease in adults including young adults.

Savitha M R(2017)[6] detected prevalence of essential hypertension in early and mid adolescents and to identify various risk factors. Blood pressure was recorded in 503 apparently normal school students in 10 to 16 yr age group as per standard guidelines. 6.16% of adolescents had high blood pressure at the end of fourth screening. Both systolic and diastolic hypertensions were documented. Increased body mass index and reduced consumption of vegetables and fruits were found to be statistically significant risk factors for hypertension.

STATEMENT OF THE PROBLEM

“An experimental study to assess the effectiveness of selected nursing interventions in prevention of hypertension on young adult atselected school of Jharkhand”.

OBJECTIVES

1. To assess the post interventional level of clinical parameters of hypertension among adolescents and young adults in study group and control group.
2. To compare the post interventional level of clinical parameters of hypertension among adolescents and young adults between the study group and control group
3. To associate the post interventional level of clinical parameters ofhypertension among adolescents and young adults in study and in control group with their socio demographic and anthropometric variables.

RESEARCH METHODOLOGY

Information about how the study was planned and conducted is a vital part of a research report. Without this, the reader cannot judge the validity of the findings and conclusions presented by the researcher. Methodology communicates to readers what the researcher did to answer the research problem.

RESEARCH APPROACH

Research approach is systematic, objective method of discovery with empirical evidence. As this study is quantitative study, explorative approach is used. The investigator has found blood pressure levels among adolescents and young adults of

RESEARCH DESIGN

The researcher‘s overall plan for obtaining answers to the research questions or for testing the research hypothesis is referred to as the research design. The research design spells out the basic strategies that the researcher adopts to develop information that is accurate and interpretable. The design indicates whether there is an intervention and what the intervention is, the methods to be used to control extraneous variables, the timing and frequency of data collection, the site and setting in which the data collection is to take place and the nature of communications with participants.

Setting

Setting is the area where the study is conducted. The study was conducted in various colleges of Bokaro city Jharkhand".

Population

The population is a complete set of individuals or objects that possess some common characteristics of interest of the researcher.

Target population:

Target population or universe is composed of the entire group of people or objects, to which the researcher wishes to generalize the findings of the study.

Accessible population:

Accessible population is the aggregate of participants who confirmed to the designed criteria and are accessible as a pool of subjects for the study.

Sample

A sample is a small portion of population selected for the research study. In the present study sample consisted adolescents & young adults from selected school and colleges of Jharkhand.

Sampling Technique

Sampling refers to the process of selecting a portion of the population to represent the entire population.

In the present study Schools/colleges were selected by random sampling i.e. lottery method. Students were selected by simple random sampling technique i.e. blind fold method.

Sample Size

The sample consisted of 150 adolescents (aged 16-19) and 150 young adults (aged 20-25) college students from selected school and colleges of Jharkhand.

Inclusion criteria

- Adolescents (16-19 years) & young adults (20-25) years are included.
- Junior college, undergraduate & postgraduate students are included
- Those who are willing to participate

Exclusion criteria

Adolescents and young adults from medical & allied health sciences are excluded.

RESULT AND CONCLUSION

Findings showed that 52% of the adolescents had normal blood pressure level, 40.8% of they were in prehypertension stage and 7.2% of them were in stage I hypertension. More than half (58.6%) of the young adults had normal blood pressure level, 31.2% of them were in pre hypertension stage, 9.8% of them were in stage I hypertension and 0.4% of them had stage II hypertension . Association of hypertension was seen with age, gender, body mass index, parental history of hypertension and certain lifestyle patterns. It was concluded that certain modifiable and some nonmodifiable risk factors of hypertension are present in adolescents and young adults. Findings are discussed with the studies reviewed. It is recommended that regular screening programmes are necessary for early detection of the disease and avoid further cardiovascular complications. The study is limited only to young population and population of Bokaro city Jharkhand". Nursing personnel should be motivated to develop education material such as posters, pamphlets, planned teaching & booklets on prevalence & identification of risk factors of hypertension.

Limitations:

- Biochemical analysis is not done which would have been helped in further identifying subject‘ details.
- The study is limited to only Bokaro city Jharkhand.
- Study is limited to only young population.

RECOMMENDATIONS

- Similar kind of studies can be undertaken in different settings and in differentpopulation.
- Similar kind of study can be done in urban and rural areas.
- Regular screening and health promotion activities should be performed amongadolescents and adults.
- A study can be done to see the effect of health awareness programmes in relationto hypertension.
- A comparative study can be done to assess prevalence of hypertension in adolescents and adults.
- A study can be done to assess the knowledge and practices related to risk factorsof hypertension in adolescents and young adults.
- A study can be carried out to see the effect of health teaching on knowledge andpractices related to risk factors of hypertension.

Abbreviation - Hypertension, pre-hypertension ,Joint National Committee (JNC) criteria, knowledge, practices, WHO, STP, adolescents, young adults, effectiveness

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