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Research Article

AWARENESS ABOUT LIFESTYLE DISEASES AMONGST THE SCHOOL GOING ADOLESCENTS OF DELHI

Kamar Sultana¹, Rubi Anjum^{1*}, Paras Wani²,¹Department of Preventive and social medicine, School of Unani Medical Education & Research, Jamia Hamdard, New Delhi, India²Medical Officer Unani, Dept. of AYUSH, GNCT Delhi, India

ABSTRACT

Objective: This study aims to assess the awareness about lifestyle diseases amongst the school going adolescents of different Govt. Schools of Delhi

Material and Methods: An interventional, quasi experimental pre-post design study was conducted in two Govt. schools of Delhi; Simple randomization technique was adopted to select the school from a list of school from west zone. Total number of students enrolled in the study was 110 at the time of Pre-test out of which 6 were drop outs and 104 students completed the study and was considered as the sample size. A self-designed questionnaire was used to assess the awareness about the lifestyle diseases.

Results: The study highlights the awareness level of adolescents about different lifestyle diseases and the effectiveness of the education program for improving the knowledge on lifestyle diseases among adolescents and thereby in prevention of lifestyle disorders.

Conclusion: School based interventions are required to improve the knowledge about lifestyle diseases in order to prevent these diseases correct practices can also be adopted.

Keywords: Lifestyle Diseases, Adolescents, Healthy lifestyle habits

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*Address for Correspondence:

Rubi Anjum, Department of Preventive and social medicine, School of Unani Medical Education & Research, Jamia Hamdard, New Delhi, India

BACKGROUND OF THE STUDY

Lifestyle diseases are the ailment that primarily depends upon the everyday habits of a person. These habits detract the individuals from regular activities and push them towards a sedentary lifestyle leading to a number of health-related issues and becoming a cause of chronic non-communicable diseases that can be even life threatening. Non-communicable kill around 40 million people every year i.e. 70% of all global deaths. It mainly occurs due to the presence of combination of factors including genetically, physiologically, environmentally and behavioural factors¹.

Pronk et al. found that a “healthy” lifestyle in the US working-age population reduced healthcare costs by 49% in adults aged 40 and above (Mayer-Foulkes, 2011). In 2002, Sturm found that obesity increased individual annual healthcare costs by 36%, smoking by 21% and heavy drinking by 10%²

Lifestyle diseases usually affects the middle or old age peoples after prolong exposure to an unhealthy lifestyle mainly related to economic transition, rapid urbanisation, and 21st century lifestyles like tobacco use, consumption of alcohol, use of fast food and unhealthy diet, insufficient activity. Most prevailing NCD risk factor globally in terms of attributable deaths are high blood pressure (13%), tobacco use (9%), diabetes (6%),

lack of physical activity (6%), and obesity (5%). During present time lifestyle diseases are becoming more common, even affecting the younger population as well, particularly the young urban population³

According to WHO, NCDs kill more than 40 million people throughout the world which is equivalent to 70% of all the death worldwide. Diseases that hold the highest burden are cardiovascular disease account for most of NCDs death share 17.7 million people from CVD annually, followed by cancer 8.8 million, 3.9 million from respiratory diseases and 1.6 million from diabetes, so these all 4 group of diseases account 80% of all premature NCD Death⁴.

According to the World Heart Federation, 35% of all CVD deaths in India occur in those aged 35-64 years Non-communicable diseases (NCDs) contribute to around 5.87 million deaths that account for 60 % of all deaths in India⁵

WHO has identified India as one of the nations that is going to have most of the lifestyle-related disorders in nearby future, however the important fact is that not only are the lifestyle disorders becoming more common, but they are showing a drastic shift toward the younger population. According to the WHO, 53 percent of the deaths in 2008 were due to NCDs in India and CVDs alone account for 24 percent of all deaths. As of 2005, India experienced the "highest loss in potentially productive years of life" worldwide, and the leading cause of death was CVD; mostly affecting people aged 35-64 years⁶.

An interventional study was conducted in two private schools of Delhi, located in west and south west zone of Delhi, Simple randomization technique was adopted to select the school from a list of school from west zone. 9th class Adolescent students had been selected for the study as Sample. A self-designed questionnaire was used to assess the awareness levels amongst the school children about different lifestyle diseases. The specific scores were given to responses of various questions, and data was analysed by Instat, Gpad Software. A total of 104 participants were included.

Therefore, this study was undertaken to assess the lifestyles knowledge of school going children, their awareness pertaining to the disease and its risk factors and their preferences in light of this knowledge.

Aim of the Study:

To assess the awareness about lifestyle diseases amongst the school going adolescents of different Gov. School of Delhi

MATERIAL AND METHODS

An interventional, quasi experimental pre-post design study was conducted in two Govt. schools of Delhi, located in west and south west zone of Delhi, Simple randomization technique was adopted to select the school from a list of school from west zone, about 4000 students were there in the Government schools of Delhi, 9th class Adolescent students had been selected for the study as Sample.

Total number of students enrolled in the study was 110 at the time of pretest out of which 6 were drop outs and 104 students completed the study and was considered as the sample size. Out of 104 students 53 were enrolled from the SKV Uttam Nagar School and 57 were enrolled from the other School.

Study Tool

Data collection tool was comprised of two parts:-

Part 1: Collection of demographic data from the students comprising of age, gender, education of father, education of mother, occupation of father, occupation of mother, family type, family income, place of residence and source of information

Part 2: A self-designed questionnaire was used to assess the awareness about the lifestyle diseases. The Knowledge questionnaire included questions on benefits of healthy lifestyle, lifestyle disorders like obesity, hypertension and diabetes mellitus. Each correct answer was scored as 1 and wrong answer as 0. The scores were arbitrarily classified as good knowledge (10 to 12), average knowledge (7 to 9) and poor knowledge (0 to 6)

Ethical Consideration

As the subjects of the study were under 18, the head of the institution or the student's counsellor was requested to give their informed consent to get the information. The Written consent was taken from Parent/ Guardian of the students and assent has been taken by students before participating them in the study. . Students were explained the purpose of the study and instructions to respond to the questionnaire were given, individual confidentiality of students was ensured. After getting the information students were told about the benefits of healthy lifestyles.

RESULTS AND DISCUSSION

Following the intervention, the knowledge scores of adolescents improved significantly. A significant difference was identified in the median pre-test and post-test knowledge scores of adolescents and thus lifestyle management program was proved to be effective in improving the knowledge on lifestyle diseases among adolescents.

Percentage of the adolescent believes that lifestyle diseases are the leading causes of death in the world increases from 68.2% to 79.8%, 61.5% believes it doesn't occur in old age in pre-test whereas in post-test 85.5% subjects agreed to it. It was found that 95.1% adolescent has knowledge about the harmful effect of tobacco consumption. In a study by Ali, et al., found that about 94% of the study sample indicated that smoking could cause serious illnesses. The study also indicated, that smoking is related to major chronic diseases, especially lung cancer and heart diseases⁷. Knowledge about diabetes was more amongst adolescent (81.5% to 95%) as in comparison with hypertension (62% to 80%) a KAP study conducted over the general population of Lucknow by Shankar et al., showed that 80% of the population has knowledge that hypertension is a diseases. Another KAP study conducted by Nair et al., showed that. Majority of the

subjects had heard about diabetes and hypertension (61.6% and 65.3% respectively) whereas only 14.4% and 15.4% of the subjects were able to give the correct answer when asked what diabetes & hypertension were respectively⁸.

Kim et. al., 2015 conducted a study to determine association of lifestyle factors with hypertension in community-dwelling Korean adults, it was found in the study that mental stress were significantly associated with hypertension in community-dwelling Korean adults, regardless of age or gender⁹.

Knowledge that stroke is a diseases of brain has been increases from 52% to 90%, A KAP study on stroke has been conducted by lekhjung et al., among high school students in Nepal also shows that 71% of the students has heard about stroke but only 40% of them knew that it is a disease of brain, A few misconceptions were prevalent among the students, including the beliefs that stroke is a contagious disease (7.4%) and the result of an ancestors' sin (10.3%). It is therefore necessary to promote educational program about stroke to improve the knowledge of its population and to come out of the prevailing misconception¹⁰.

Table 1: Item wise comparison of pre-test and post-test lifestyle practice scores of adolescents in terms of percentage (n = 104 for Gov. schools)

ITEMS		Govt. pre-test (%)	Govt. post-test %
Life-Style diseases are one of the leading causes of death in the world	Yes	68.27	79.81
	No	14.42	10.58
	Don't Know	17.31	9.62
Life-Style diseases only Occurs in old age	Yes	28.85	12.50
	No	61.54	85.58
	Don't Know	9.62	1.92
Does tobacco intake lead to cancer	Yes	95.19	100.00
	No	3.85	0.00
	Don't Know	0.96	0.00
Diabetes is a condition of:	High level of sugar	81.73	95.19
	Low level of sugar	9.62	3.85
	Don't Know	3.85	0.96
	Any other	4.81	0.00
Hypertension is condition when	High Blood pressure	62.50	80.77
	Low Blood pressure	14.42	9.62
	Don't Know	13.46	8.65
	Any other	9.62	0.96
If brain oxygen or nutrient supply gets reduced; it may lead to stroke	Yes	52.88	90.38
	No	13.46	3.85
	Don't Know	33.65	5.77
Do unhealthy diet and sedentary lifestyle cause obesity?	Yes	60.58	91.35
	No	33.65	8.65
	Don't Know	5.77	0.00
Do you know Tobacco Smoking lead to Lung diseases	Yes	87.50	97.12
	No	7.69	0.96
	Don't Know	4.81	1.92
Do the feeling of rejection or ignorance by the friends or family cause depression	Yes	50.96	84.62
	No	39.42	10.58
	Don't Know	9.62	4.81
All life-style diseases are genetic in nature	Yes	61.54	40.38
	No	28.85	55.77
	Don't Know	9.62	3.85
Does the consumption of fried/ oily food affect the liver or heart	Yes	84.62	98.08
	No	10.58	0.00
	Don't Know	4.81	1.92
Do you know involving in physical activities helps to reduce the chances of lifestyle diseases?	Yes	71.15	84.62
	No	25.00	13.46
	Don't Know	3.85	1.92

Knowledge Assessment**Assessment of Pre-test and Post test data of Gov. and Private school**

Mean Knowledge Score of Govt. School of Delhi			
Parameters	Pre	Post	Difference
Mean	8.05	10.4	-2.36
Std. Deviation	1.94	1.59	2.15
Std. Error	0.19	0.15	0.21
Minimum	1	4	-9
Maximum	12	12	3
Lower 95% CI	7.67	10.1	-2.7
Upper 95% CI	8.43	10.7	-1.9

RESULT

- A. Sum of all signed ranks (W) = -4180
 B. Sum of all positive ranks (T+) = 190
 C. Sum of all positive ranks (T-) = -4370

Mean Difference: -2.13

The Z-value:-7.75. The p-value is 0. The result is significant at $p \leq 0.05$

The results are found extremely significant at $p \leq 0.05$ proves the effectiveness of education program in improving the knowledge about lifestyle diseases and its relative risk factors among adolescents. There exists an extensive literature supporting the effectiveness of long term intervention programs in promoting healthy

lifestyle among children and adolescents. At the same time, it is noteworthy that even of shorter duration lifestyle management programs as employed in the present study can make an impact on the lifestyle of adolescents.

CONCLUSION

Educational interventions are effective in improving the knowledge of adolescents regarding healthy lifestyle as schools are supposed to be an important platform in imparting knowledge on health promoting lifestyle diseases, initiatives should be taken at school level including curriculum modification and conducting lifestyle modification programs so that the students in their early life may adopt healthy lifestyle habits.

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