



Prevalence of Practices of Preventive Health Care Measures and its causes among Medical Professionals of Shyam Shah Medical College, Rewa, India

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Abstract

Since ancient era emphasis has been given to the preventive aspect of health and it is well known that the prevention is better than cure. Preventative healthcare practices are some of the best weapons against disease and a way to monitor conditions before they become too serious. Preventative healthcare measures include routine health check ups, regular physical exercise, avoidance of alcohol and smoking, consumption of salt less than 5 gm per day etc always positively affects the health and adoption of such practices clear cut decreases the burden specially of NCDs (non communicable diseases). Since preventive measures are always cost effective and adoption of such practices among medical professional is a great stimulus to the other public. Preventive health care measures can adopt on three levels of prevention.—primary, secondary and tertiary. To assess the prevalence of practices of preventive health care measures among Medical professionals and to know the reasons of not having such practices. this was a health care institute based observational cross sectional study including randomly selected 50 medical professionals (nly medical faculties and medical PG residents from the different Department of Sham Shah Medical College and affiliated teaching Hospital of Rewa M.P. INDIA. Data was collected with the help of set proforma and then analysed with applying epi info 2000. Chi square test was applied appropriately. Total 13 (26%) medical professionals out of 50 were practicing all seven preventive health care measures which were included in the present study. Among of these 13 maximum were male 12 (24%) and only 1 (2%) was female participants. The distribution of prevalence of utilization of preventive health care measures and not utilization of such measures among medical professions in relation to age group was found to statistical significant.(Chi-square : 15.27 ,p-value : 0.000483). On the basis of this study it can conclude that utilization of such preventive health care measures among the Medical Teachers can influence community people to acquire such measures hence the adaptations of such measures can lead to improve health status of community people as well as themselves too.

Keywords: Preventive health care measures, NCD, prevalence.

Introduction

Epidemiological transition is occurring at global level so that in the most of the part of the globe now a days non communicable diseases are prevailing at greater magnitude. As the world entered into the new millennium, chronic diseases accounted for 60% of all deaths worldwide, with 80% of those taking place in developing countries like India; where they take a disproportionate toll during the ages of prime productivity¹. In 2004, deaths due to non-communicable diseases in India were twice those from communicable diseases. Non-communicable diseases accounted for 40% of all hospital stays (with longer stays than for any other type of health condition) and 35% of all outpatient visits in 2004.²

The projected cumulative loss of national income for India due to non-communicable disease mortality for 2006-2015 will be USD237 billion. By 2030, this productivity loss was expected to double to 17.9 million years lost –almost 1,000% greater than the corresponding loss in the United States, which has a population a third the size of India's³.

WHO also identifies the six leading risk factors that are associated with non-communicable diseases as being the leading global risk factors for death today⁴: like- tobacco use, physical inactivity, overweight/obesity, high blood pressure, high cholesterol levels, high blood glucose levels .Which all lead the four leading chronic diseases in India, as measured by their prevalence, are in descending order: cardiovascular diseases (CVDs), diabetes mellitus (diabetes), chronic obstructive pulmonary disease (COPD) and cancer. All four of these diseases are projected to continue to increase in prevalence in the near future given the demographic trends and lifestyle changes⁵.

Since ancient era emphasis has been given to the preventive aspect of health and it is well known that the prevention is better than cure. Preventative healthcare practices are some of the best weapons against disease and a way to monitor conditions before they become too serious. Preventative healthcare measures include appropriate health screenings, immunizations and being aware of current lifestyle choices and how it affects health. Since preventive measures are

always cost effective. Preventive health care measures can adopt on three levels of prevention—primary, secondary and tertiary by keeping all these factors in the mind; In May 2008, at the 61st World Health Assembly, health ministers endorsed the Action Plan for the Global Strategy for the Prevention and Control of Non-communicable Diseases (NCD Action Plan). This NCD Action Plan defines objectives for implementation during a six-year period from 2008 to 2013 with a particular focus on low - and middle - income countries like India and vulnerable populations⁶. The adoption of healthy practices by all is the prime need in this epidemiological transition phase of diseases. The medical professionals are the light lamps of maintenance of health services for the others and they are the key pillars for further development of medical knowledge. It is known that everyone from the society/community expects that the doctors specially the medical teachers are the healthy examples for surrounding them. So that this study is conducted to know the prevalence of utilization of preventive health care measures among the medical professionals.

Aims and objective: i. To assess the prevalence of practices of preventive health care measures among Medical professionals. ii. To know the causes of not having practices of preventive health care measures.

Methodology

Study type: It was an institutional based observational cross sectional study. **Study duration:** 3- Months i.e. 1st august to 30th October 2012. **Study area:** S. S. Medical College Rewa and campus. **Study subjects:** 50 Medical Professionals i.e. Post Graduate Residents, Medical Teachers including tutors of S.S.M.C. Rewa.

Inclusion/exclusion criteria: Medical Professional >30 yrs of age and willing to participate are included in this study and Medical professional < 30 yrs of age and not willing to participate were excluded from the study. It was not related with any intervention to the community people or medical fraternity and it was consent based study so that there was no ethical issue to be considered.

Study tool: a semi structured questionnaire based proforma was used to collect data regarding basic information about the study participants i.e. age,sex, marital status etc and proforma was also used to collect the data regarding various preventives measures i.e. physical activities, dietary habits, smoking, alcohol drinking etc. which are being practiced by medical teachers.

Sampling: 50 medical professionals as participants working at Shyam Shah Medical College were randomly selected after applying inclusion/exclusion criteria. Total 150 medical professionals including faculties as well as residents more than

30 years of age; were working regularly at the institution during study period and for the selection of study participants randomly every third was picked up as study subject hence total 50 was the study sample size. After selection of 50 participants as study subjects then distribution of those participants according to the age and sex was done. (Details of Age and Sex distribution is available in table-2). The overall confidentiality of responses of medical professional in relation to their practices of various preventive health care measures was maintained through out the study.

Data analysis: it was done by the applying epical info 2000 and appropriate statistical tests were also applied.

Observations: Most of the medical professional (76%) are Vegetarian in Dietary habit and only 24% are not Vegetarian in diet habit, salt intake less than 5 gm per day was found among only 38% participants and remaining 62% participants were taking more than 5 gm salt per day, avoidance of alcohol consumption was found among 64% participants and similar response was also found for consumption of PUFA. In case of regular physical exercise of at least 30 minutes was found among only 34% and regular physical checkups like BP measurements, blood sugar estimation and lipid profile investigation etc within certain period of time was found among only 26% medical professional.

In case of age wise distribution, overall 17 participants were belong to age group 30-40yrs , 19 were belong to age group 40-50yrs and remaining 14 were belong to age group more than 50 yrs. In case of sex wise distribution only 9 (18%) study participants were belong to female and remaining 41(82%) were belong to male sex. But when it was seen the age wise distribution of such medical professional who were using all the seven preventive health care measures i.e. Veg. Dietary Habit, Avoidance of cigarette smoking, Avoidance of alcohol consumption, salt intake <5 gm /Day, Consuming PUFA, regular exercise, regular physical checkup were found among only 13(26%) of medical professional and remaining 74% medical professional utilize some of the preventive health care measures but not all measures they utilize. the maximum 9/13(18% out of 26%) were belong to more than 50yrs yrs of age and only 1 (2%) participant was belong to age group 30 to 40 yrs. Age group from 40 to 50 yrs who were utilize all 7 preventive health care measures were 3(6%) only. Hence The all parameters of utilization of preventive health care measures Among of these 13 maximum were male 12 (24%) and only 1 (2%) was female participants. The distribution of prevalence of utilization of preventive health care measures and not utilization of such measures among medical professions in relation to age group was found to statistical significant. (Chi-square: 15.27, p-value: 0.000483)

Table-1
Participants having practices of different health care measures (N=50):-

S. No.	PHCM**	Practicing *	%	Not Practicing *	%
1	Veg.Dietary Habit	38	76%	12	24%
2	Avoidance of cigarette smoking	38	76%	12	24%
3	Avoidance of alcohol consumption	32	64%	18	36%
4	Salt intake <5 gm /Day	19	38%	31	62%
5	Consuming PUFA	32	64%	18	36%
6	Regular Exercise	17	34%	33	66%
7	Regular physical checkup	13	26%	37	74%

PHCM**=Preventive Health Care Measure, *= Multiple Choice Responses,

Table-2
Age and Sex wise Distribution of Participants in relation with prevalence of practices of preventive Health Care Measures (N=50)

S.No	Age group(Yrs)	ALL PHCMs are Present		ALL PHCMs are not present	
		Total	Sex of participants	Total	Sex of participants
1	30-40	1	M=1(2%) F=0(0)	16	M=11(26%) F=5(10)
2	>40-50	3	M=3(6%) F=0(0%)	16	M=13(26%) F=3(6%)
3	>50	9	M=8(16%) F=1(2%)	5	M=5(10%) F=0(0%)
Total		13	M=12(24%) F=1(2%)	37	M=29(58%) F=8(16%)

Chi-square: 15.27 , p-value : 0.000483

Table-3
Reasons of Not Practicing of preventive health care measures (N=50)

S. No.	PHCM**	No of participants	%	Reasons of non utilization of PHCM	No. of Participants	%
1	No Veg. Dietary Habit	12	24%	1.Like to have Non veg diet some time	8	16%
				2.mainly prefer	4	8%
2.	No Avoidance of cigarette smoking	12	24%	1.In habit	7	14%
				2.Influenced with peer group	5	10%
3.	No Avoidance of alcohol consumption	18	36%	1.Party sharing habits	7	14%
				2.Habitual for daily	5	10%
				3.Peer group pressure	6	12%
4	No Salt intake <5 gm /Day	31	62%	1.Spicy and salty eating habit	17	34%
				2.Not taking care of amount of salt	14	28%
5	No Consuming PUFA	18	36%	1. Ghee liking habit	11	22%
				2.Mustard oil preference for taste	7	14%
6	No Regular Exercise>30 min	33	66%	1.Lack of time	12	24%
				2.No felt need	11	22%
				3.Not interested	10	20%
7	No Regular physical checkup	37	74%	1.Lack of time	8	16%
				2.No felt need	13	26%
				3.Not advised by physician	16	32%

PHCM**=Preventive Health Care Measure, *= Multiple Choice Responses,

out of 24% non vegetarian, 16% participants shown the reason of like to have non veg some time and 8 % of them told that they were mainly prefer non veg. so that they are not taking veg diet. 10% participants told that they are unable to avoid cigarettes because due to peer group pressure. in case of non avoidance of alcohol 14% told that it was due to party sharing habit and 12% told it was due to peer group pressure. Total 66% participants were not utilizing regular physical exercise out of all those 24% told it was due to lack of time and 22% told it was due to no felt need. Similarly 26% respondent told that they are not using regular physical check ups due to no felt need but 32% told that they are not using regular physical check up due to there is no advice by physicians.

Discussion: In case of practices of dietary habit most of medical professional (76%) were Vegetarian in Dietary habit and only 24% were not Vegetarian in diet habit, (table-1) this type of prevalence of dietary pattern can be due to co incidentally most of them prefer veg diet or it can be due to less number of participants are enrolled in the present study. Similar findings were also found by S F Knutsen et al⁷ in USA that 55% respondents were practicing Vegetarian diet and they also found that the chronic diseases were more among non veg. dietary habit people in comparison of vegetarian diet habit people. The preferences of vegetarian diet habit could be due to awareness of medical professionals regarding the benefit of such diet in case of less chances of encounter of non communicable diseases. C L Melby et al⁸ also found in USA that the high blood pressure and elevated lipids were more in numbers among semi vegetarian and non vegetarian dietary habit people rather than vegetarian dietary habit people.

The practices of salt intake of less than 5 gm per day was found among only 38% participants and remaining 62% participants were taking more than 5 gm salt per day, avoidance of alcohol consumption was found among 64% participants and similar response was also found for consumption of PUFA. The practices of regular physical exercise of at least 30 minutes was found among only 34 % of participants it could be due to only few of them were interested in such practices and regular physical checkups like BP measurements, blood sugar estimation and lipid profile investigation etc within certain period of time was found among only 26% medical professional, this type of prevalence of utilization of regular physical checkups could be due to that these all are medical professional so that they may think the medical care is very near to their access at any time. Similarly studies carried out at Japan by Shinsho F⁹ et al also found the health check up but among older people was more than 50 % over 14 yrs of duration but the studies among medical professional by the others are lacking for the compare in discussion.

Similarly Stephanie Thompson et al¹⁰ also found general check up among adult population in Canada was varied from 50% to 90% specially for screening for various diseases. Although the

findings are different but it may be due the variation in study subjects with the present study.

The need of such health check up is key concern now a days even being medical professional it was found lack of such health checkups among them although there is no need to prove benefits of such routine health check up for prevention of morbidity and mortality specially for non communicable diseases. Kurien Thomas et al¹¹ also found in Europe and North America the routine health check ups and their role in prevention of morbidities and mortality among adults.

In other hand the medical professional who were taking non veg diet were 24 %, who were in habit of cigarette smoking were 24 % and who were not able to avoid alcohol i.e. who were consuming alcohol were 36 %, salt intake was more than 5 gm per day was among 62%, similarly PUFA was not consuming by 36%, regular physical exercise was not present among 66% and there was no regular physical check up among 74%. Similar findings regarding cigarette smoking was found by national health survey of USA report published in CDC site that in 2009, 20.6% of U.S. adults aged ≥ 18 years were current cigarette smokers¹². Men (23.5%) were more likely than women (17.9%) to be current smokers. The prevalence of smoking was 31.1% among persons below the federal poverty level. For adults aged ≥ 25 years, the prevalence of smoking was 28.5% among persons with less than a high school diploma, compared with 5.6% among those with a graduate degree. These findings are similar to the present study. Similarly Prabhat Jha¹³ et al also conducted a study among the people of 139 countries and found that globally, 29% of persons aged 15 years or older were regular smokers in 1995. Four fifths of the world's 1.1 billion smokers lived in low- or middle-income countries. East Asian countries accounted for a disproportionately high percentage (38%) of the world's smokers. Males accounted for four fifths of all smokers, and prevalence among males and females was highest among those aged 30 to 49 years (34%). Similar studies related to alcohol consumption among Indian adult were also conducted time to time. Lal R et al¹⁴ also found that Increase in alcohol intake is seen among the young people. Annual prevalence of drinking among adult males in India is low. However, the worrying development is that over two decades the consumption of alcohol in India has increased by 106% as against many countries where the consumption of alcohol declined. Similarly In National Household Survey of Alcohol and Drug Abuse 21.4% were reported to be current users of alcohol (used in last 30 days)¹⁵ In the present study this prevalence was found 36 % which is also similar to the other cited studies. K M Venkat Narayan, et also found at New Delhi in 1996, 45% (95% confidence interval 43.8 to 46.2) of men and 7% (6.4 to 7.6) of women were smokers of urban Delhi.¹⁶

As per NSSO survey of 1993-1994 conducted all over the India 35.3% male and 2.6 % female were regular smokes from the age group of 15-60 yrs¹⁷. Similarly M Rani¹⁸ et also found in 2003 that the among of Indian population 15 years or older—47%

men and 14% of women—either smoked or chewed tobacco, which translates to almost 195 million people—154 million men and 41 million women in India. However, the prevalence may be underestimated by almost 11% and 1.5% for chewing tobacco among men and women, respectively, and by 5% and 0.5% for smoking among men and women, respectively, because of use of household informants in the study of M Rani. Similarly Soni Preeti¹⁹ et al also found that almost 30 percent of the Indian population older than age 15 years uses some form of tobacco. Men use more smoked tobacco than smokeless tobacco. Women are more likely to use smokeless (chewed) tobacco.

When it was seen that how many of medical professional were using the set of all seven preventive health care measures included in the present study then it was found that out of 50 total 13(26%) were using all measures and among these 13 (26%) more were belong to male (12 in number) and only one was belong to female sex (Table-2) The distribution of prevalence of practices of all preventive health care measures and non practices of such measures among medical professional in relation to age group and sex composition of study participants was found to be significant .(Chi-square : 15.27 ,p-value : 0.000483).Although only a quarter of medical professional were using all seven preventive health care measure, some where it gives attention to all of the medical professionals to adopt health life style. Only one female was found using all preventive health care measures it may be due that female professional become more engage in other household activities along with the routine job responsibilities than the male so male are comparatively more free, in other hand it could be due to that in this study only 9 female were included but total 41 male were out of total 50 participants. In case of age group who were mostly practicing a set preventive health care measures were belong to more than 50 yrs of age and the percentage was 18 % (9 out of 50) and only one medical professional was belong to age group 30-40 yrs age while 3 participants were of age group 40-50 yrs having practices of all set seven preventive health care measures. This type of pattern could be due to that the more the younger age group less the people are health conscious and more the elder age group people are more health conscious hence elder age group is more prone for non communicable disease attack. Similarly as per the CDC²⁰ Atlanta report in concern of USA Despite the effectiveness of these potentially life-saving preventive services, only 25% of adults aged 50 to 64 years in the United States, and fewer than 40% of adults aged 65 years and older are up to date on these services. In this prospect even CDC Atlanta set the objectives of Increasing the proportion of older adults who are up to date on the core set of clinical preventive services by 10 percent the proportion of men (from 46.3% to 50.9%) and women (from 47.9% to 52.7%)²¹ who are up to date on the core set of clinical preventive services by the year 2020. This approach aims to provide a more meaningful measure of the delivery of clinical preventive services in the community.

When the causes of not practicing of such preventive health care measures was seen then in case of 24% of non veg. diet practicing medical professional out of those 8 % shown mainly preference of non veg. diet and remaining 16% shown that they liked to have non veg. diet as causes of non veg. diet habit preference (Table-3). The causes of such salt eating habit was found mainly due to spicy and salty eating habit (34%) and remaining 28% were due to not taking care of salt during meal time. In case of 66% medical professional were not having such regular physical exercises practices when the reasons behind this was found that the lack of time was the main reason (24%) and 20% shown as they were not interested in regular physical exercise. In case of 74% medical professional not using regular physical check up, among of them most of shown(32%) as they were not advised by any physician and 26% of them told that there is no felt need of such physical check up but in case of 16% of medical professional shown that they were having lack of time to do so.

Conclusion

Although this study contains fewer study subjects i.e. only 50 in number because all these belong to medical professionals and medical profession is one of the precise profession and lacking in strength in developing country like India and these small number should have to cover the maximum number of community people hence 50 sample size can be justified and findings can be generalized. In other hand if this type of study could be done at larger group of medical professional of different health care set up then the generalization of the findings of the study could have better precision every where. So it is the need of time to conduct such studies among larger group to sensitize people towards non communicable diseases. On the basis of this study we can conclude that utilization of such preventive health care measures among the Medical Teachers can influence others of surrounding them hence the adaptations of such measures can lead to improve health status of community people as well as themselves too.

Recommendations: i. Medical teachers should adapt preventive health care measures as early as possible in their life so that morbidity can decreased at a greater magnitude. ii. Medical teachers should try to avoid various causes of non utilization of preventive health care measures. iii. From the Govt. as well as higher officials there should be provisions for allocation of special timing for medical check ups/ exercises for medical teachers so that they can manage time and get advantages of their knowledge.

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