Factors Affecting The Utilization Of Preventive Health Check-Ups Amongst The Healthcare Professionals At A Teaching Hospital

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Abstract:

It is crystal clear that preventive health check-up for medical staff is the most significant clinical practice in any organization. Past few years, the practice of regular preventive health check-up is constantly growing and that resulting in the reduction of weighty financial expenses of instant health check-up in an emergency situation. This type of practice has also been inspiring many employees of a different organization. There are many initiatives have been taken by many organization, in spite of that there is a huge gap is being observed. Owing to that reason, investigator has tried to collect the authentic information from the nurse, paramedical staff and general staff from private hospitals on the process of her partial fulfillment of summer internship program. Finally, all authors have also taken an endeavor to produce an authentic research paper and tried to conclude by applying the statistical package.

Key words: Preventive, Healthcare professionals, Health check-up, Doctors, Self- medication, Reliable, Negligence, Cultural deprivation and Perception.

INTRODUCTION

The main aim of a 'Preventive Health Checkup' is to diagnose the diseases in a primary stage and to lessen the risk factors. It has already been established that the cost of regular preventive health checkup is cheaper than visiting hospitals in an emergency. It is the responsibility and the right of every individual to keep his/her health perfect. In spite of being highly educated and having an established professional identity, such professionals fail to undergo timely health evaluation due to several factors. Preventive care includes a variety of healthcare services, such as physical examination, screenings, diagnostic tests, counseling, and immunization.

Any company or an organization concerned with the health status of its employees, should initiate preventive health check-ups. The entire efforts of making health and wellness packages ~~are~~ more comprehensive will fall flat if this basic step is not effectively executed. For successful prevention strategies, the employers have a crucial role to play in changing the sedentary lifestyle of employees and indulging more towards the physical activities and several preventive health check-ups. During the last few years, preventive healthcare market share have grown by 25%, opening up opportunities for all hospitals and other establishments to encourage their employees for availing preventive health check-up services.

The study conducted here is focusing on the health professionals who are working in a teaching hospital. A questionnaire format has been designed, inclusive of all those factors that are divided into the prominent list of institutional, individual and the socio-cultural factors which are affecting their behavior due to which employees face ~~the~~ hurdles towards the analysis of their own health. It includes several factors such as a delay due to time issues, negligence towards own health, and low interest in participation for clinical check-ups. A Stratified sample size is drawn from the teaching hospital with its various departments - Medical, Dental, Pharmacy, Physiotherapy, Management, and Nursing being considered as Stratum. The rate of involvement of one's own health and correct

initiatives after instances are taken care of has not been analyzed. Statistical analysis of the data collected has also been conducted through SPSS software and as per the results of the same, the effective solution to the factors affecting are recommended as well.

This study will help to explore all the significant factors that are hindrances towards one's good health and because of which they fail to undergo preventive health check-ups. And the compiled data will be applied for the results according to their demography and departments. Applying statistical tests to the same will also be undertaken and conclusion out of the same will rate the most crucial factors due to which they fail to undergo ~~for~~ preventive health check-ups. Hence this study will endeavor to find all those prominent problem factors and recommend solutions so that the healthcare professionals can apply their own risk-free decisions.

Objectives of the Study:

- To evaluate the most prominent factors that are affecting preventive health check-ups amongst the health care professionals.
- To evaluate which major age groups are affected due to those factors amongst the healthcare professionals
- To evaluate which gender is most affected due to those factors amongst the healthcare professionals.
- To evaluate how the different departments are affected due to those factors for preventive health check-ups.

Hypotheses of the Study:

1. **Ho:** There is no difference between the various age groups and factors affecting preventive health check-ups amongst the healthcare professional
   Ha: There is a difference between the age groups and factors affecting preventive health check-ups amongst the healthcare professionals
2. **Ho:** There is no difference between the two gender groups and factors affecting preventive health check-ups amongst the healthcare professionals
   Ha: There is a difference between the two gender groups and factors affecting preventive health check-ups amongst the healthcare professionals
3. **Ho:** There is no difference between the department groups and factors affecting preventive health check-ups amongst the healthcare professionals
   Ha: There is a difference between the age groups and factors affecting preventive health check-ups amongst the healthcare professionals

REVIEW OF RELATED LITERATURE

The present paper of the 'health belief model' is confined to the area of health behavior. It is not clear about the real border between illness behavior and sick role behavior so it is better to understand the process of using preventive health service and the reason behind using the same. The utilization studies undertaken are meant to achieve the broader aim of why the services are used that ultimately failed to accomplish the purpose. But yet the question of why people use or fail to use certain preventive health care services are mentioned with evidence in support of the conclusion which is been drawn from the studies[1]. In this research paper, the main focus is concerned with the factors that prevent the individual to choose healthier lifestyles needs to be recognized and discussed. Studies examining one or more of the health belief model variable was also reviewed. Recommendations for further study were mentioned in addition to improving its intervention[2]. The effectiveness of health promotion activity in general practice for analyzing risk factors associated and its reduction for coronary heart disease is aimed to assess the impact of practice-based health check-ups on behaviors of the patients over a 2 – year period. The methodology for the same surveyed a general practice cohort of 7123 patients from 18 practices. 840 patients had been offered a health check-up within a 12-month period 621 patients responded and 250 patients were asked back for a follow-up after their health check-up. Results of the same were found towards no difference in smoking cessation, alcohol consumption, weight loss nor the amount of exercise that were taken between those who attended for a health check-up. The statistical test applied was (Mann-Whitney U test $p<<0.002$). The maintenance of appropriate health behaviors change was not likely to receive consistently[3]. The main object of this study is to establish knowledge and use of preventive health practices, and with this, the relationship was between acculturation and preventive health practices in Korea that involved 656 women through the data from 2000 Korean American Health Survey. It is

indicated with the dependent variable which is pap smears, physical examinations, and mammograms as well as the use and knowledge of self-breast examinations whereas the independent variables included the demographic and acculturation variables. Results of it included the married Korean women possibly having a pap smear within 2 years ($p<0.0001$), a physical exam within 1 year ($p<0.0001$) and those who performed self- breast examinations ($p<0.05$)[4]. This study is related with the utilization of preventative health check-ups for various National Health Service (NHS) health check-ups in the UK: findings from individual-level repeated cross-sectional data from 1992 to 2008 that is in addition to analyzing and comparing the determinants of screening uptake.[5].The object of the study is concerning the utilization of free adult preventive health care and the affecting factors of physically disabled people. Physically disabled using preventive health care tend to be low. There are many factors which significantly influenced the use of free adult preventive health care by the physically disabled such as age, education, gender marital status, residence areas urbanization, payroll in a month, status of aboriginal, terrible illnesses condition, related chronic diseases, and severe position of the disability. [6] In this study, the examination is concerned with barriers affecting preventive health services utilization rates. In this study of 206 secondary data, 132 Chilean adults was examined for the cross-sectional study.[7] the main objective of the study is to investigate the differences in the use of preventive health services among nonstandard, standard workers and the self-employed and unpaid family workers. On the whole, the standard workers were using a lesser amount of preventive health care[8] as compared to the non-standard workers, the self-employed, and unpaid family workers.

RESEARCH METHODOLOGY:

STUDY DESIGN

- It is a descriptive (cross- sectional) study. The factors affecting preventive health care check-ups of 179 healthcare professionals has been assessed in a trust based hospital of Gujarat.
- **Type of Study:** Cross- sectional study
- **Place of Study:** A trust based teaching hospital in Vadodara, Gujarat.

Research Design:

This research was completed in 2 months' time to determine the various factors which refrain a health care professional from undergoing preventive health check-ups.

Sample size for the study is 179.

Sources of Data:

- The study entails capturing primary data on the basis of a structured questionnaire which will define all the factors that may directly or indirectly affect the decision of undergoing the healthcare check-ups. The method of collection is through distributing the questionnaire amongst the faculties of a teaching healthcare institute with a request to fill that voluntarily through consent.
- Method of Data Collection/Data Collection Procedure

A cross-sectional descriptive design using a structured close ended survey questionnaire is employed to compare and evaluate the importance of preventive health check-ups amongst the healthcare professionals. The study is focused upon the healthcare professionals who are well educated regarding the timely health check-ups but due to several factors or numerous circumstances not able to undertake. A stratified sample proportionate to the population size in each of the 6 departments (medical, dental, pharmacy, management, physiotherapy, and nursing) of the teaching hospital is chosen. Statistical analysis through SPSS software is conducted.

STATISTICAL ANALYSIS:

AGE

Table no. 1.1: Age-Wise Descriptive Statistics

Age Group	Frequency	Percent
21-30 Years	26	14.5
31-40 Years	47	26.3
41-50 years	62	34.6
More than 50 Years	44	24.6
Total	179	100.0

The highest representation in the sample came from the 41-50 years Age Group (62; 34.6%) with a distant second from the 31-40 years age group (47; 26.3%) and close third in more than 50 years age group (44; 24.6%).

GENDER

Table no. 1.2: Gender-Wise Descriptive Statistics

Gender	Frequency	Percent
Male	77	43.0
Female	102	57.0
Total	179	100.0

Female representation in the sample (102; 57%) is more than the Male representation (77; 43%)

DEPARTMENT

Table no. 1.3: Department-Wise Descriptive Statistics

Department	Frequency	Percent
Medical	98	54.7
Dental	37	20.7
Physiotherapy	11	6.1
Pharmacy	14	7.8
Nursing	15	8.4
Management	4	2.2
Total	179	100.0

The top three departments having the highest representation in the sample came from Medical (98; 54.7%), Dental (37; 20.7%) and Nursing (15; 8.4%)

FACTORS:

A set of 19 factors affecting preventive health care check-ups is broadly classified in 3 categories – 7 Institutional Factors, 7 Individual Factors and 5 Social Factors

INSTITUTIONAL FACTORS:

1. Do not find doctors reliable in assessing preventive health
2. Cost effective preventive health check-up is missing
3. Promptness to clinical supporting services are inefficient
4. Prolong waiting for health check-up
5. Inefficient post check-ups counseling
6. Negligence of doctors and staff towards health check-up plan
7. Rude improper behavior of the staff at the ~~of~~ hospital

INDIVIDUAL FACTORS:

1. Self-medication as the first recourse for the majority of health issues
2. Perceptional impact towards the preventive health check-ups
3. Negligence towards the own preventive health
4. Lack of time coordination between workplace and health check-ups at hospital.
5. Limited information in making crucial choices for the preventive health care packages.
6. Under developed residential area/location which results in accessible health facilities.
7. Dependent on family members decisions for undergoing health checkups

SOCIAL FACTORS:

1. Cross-cultural difference amongst family or with society regarding preventive health
2. Unapproachable due to religious practices or religious beliefs
3. Unapproachable due to family structure
4. Due to cultural deprivation peer group differences
5. Influence of racial and ethnic groups in the society

FREQUENCY STATISTICS:

The frequency statistics mentioned in the table below for a sample size of 179 faculty indicates the number and percentage of employees who responded to the agreement disagreement scale of all the 19 factors. The Likert rating of Strongly Agree (5) and Agree (4) is clubbed into one group “Overall Agree”, while that of Strongly Disagree (1) and Disagree (2) are clubbed into another group, “Overall Disagree”.

FREQUENCY TABLE:

Questions	1	2	3	4	5	1 and 2	4 and 5
Institutional Factors							
Do not find doctors reliable in assessing preventive health	14 7.8%	53 29.6%	29 16.2%	66 36.9%	17 9.5%	67 37.4%	83 46.4%
Cost effective preventive health check-up is missing	8 4.5%	32 17.9%	38 21.2	81 45.3	20 11.2	40 22.4%	111 56.5%
Promptness to clinical / supporting services are inefficient	4 2.2%	27 15.1%	50 27.9%	83 46.4%	15 8.4%	31 17.3%	98 54.8%
Prolong waiting for health check-up	2 1.1%	27 15.1%	33 18.4%	97 54.2%	20 11.2%	29 16.2%	117 65.4%
Inefficient post check-up counseling	3 1.7%	22 12.3%	65 36.3%	80 4.7%	9 5%	25 14%	89 9.7%
Negligence of doctors and staff towards health check-up plan	4 2.2%	37 20.7%	89 49.7%	44 24.6%	5 2.8%	41 22.9%	49 27.4%
Rude/ improper Behavioral of the staff of hospital	5 2.8%	62 34.6%	95 53.1%	17 9.5%	00 0%	67 37.4%	17 9.5%
Individual Factors							
Self- medication as the first recourse for the majority of health issues	2 1.1%	21 11.7%	36 20.1%	85 47.5%	35 19.6%	23 12.8%	120 67.1%
Perceptional impact towards the preventive health check-ups	2 1.1%	20 11.2%	60 33.5%	71 39.7%	26 14.5%	22 12.3%	97 54.2%
Negligence towards the own preventive health	5 2.8%	23 12.8%	58 32.4%	64 35.8%	29 16.2%	28 15.6%	93 52%
Lack of time coordination between workplace and health check-ups at hospital	3 1.7%	22 12.3%	28 15.6%	88 49.2%	38 21.2%	25 14%	126 70.4%
Limited information in making crucial choices for preventive health care package	7 3.9%	29 16.2%	69 38.5%	55 30.7%	19 10.6%	36 20.1%	74 41.3%
Under developed Residential Area/location results inaccessible health facilities	7 3.9%	39 21.8%	83 46.4%	44 24.6%	6 3.4%	46 25.7%	50 28%
Dependent on family members decisions for undergoing health check-ups	18 10.1%	53 29.6%	81 45.3%	22 12.3%	5 2.8%	71 39.7%	27 15.1%
Social Factors							
Cross cultural differences amongst family with society regarding preventive health	22 12.3%	61 34.1%	66 36.9%	25 14.0%	5 2.8%	83	30

						46.4%	16.8%
Unapproachable due to religious practices or religious beliefs	23 12.8%	65 36.3%	74 41.3%	17 9.5%	00 0%	88 49.1%	17 9.5%
Unapproachable due to family structure	28 15.6%	65 36.3%	66 36.9%	20 11.2%	00 0%	93 51.9%	20 11.2%
Due to Cultural deprivation, peer group differences	27 15.1%	64 35.8%	73 40.8%	15 8.4%	00 0%	91 50.9%	15 8.4%
Influence of Racial and ethnic groups in the society	34 19%	74 41.3%	69 38.5%	1 0.6%	1 0.6%	108 60.3%	2 1.2%

1. Strongly Disagree 2.Disagree 3.Neutral 4. Agree 5. Strongly Agree

The top five factors affecting preventive health check-up are:

1] Lack of time coordination between workplace and health check-ups at hospital (126; 70.4%)

2] Self- medication as the first recourse for the majority of health issues (120; 67.1%)

3] Prolong waiting for health check-up (117; 65.4%)

4] Cost effective preventive health check-up is missing (111; 56.5%)

5] Promptness to clinical / supporting services are inefficient (98; 54.8%)

The top 2 factors amongst each of the three categories are:

Institutional Factors:

1] Prolong waiting for health check-up (117; 65.4%)

2] Cost effective preventive health check-up is missing (111; 56.5%)

Individual Factors:

1] Lack of time coordination between workplace and health check-ups at hospital (126; 70.4%)

2] Self- medication as the first recourse for the majority of health issues (120; 67.1%)

Social Factors:

1] Cross cultural differences amongst family or with society regarding preventive health (30; 6.8%)

2] Unapproachable due to family structure (20; 11.2%)

NON-PARAMETRIC TESTS:

A non-parametric test, also known as Assumption-free test, works on the principle of ranking the data; that is, finding the lowest score and giving it a rank of 1, then finding the next highest score and giving it a rank of 2, and so on. This process results in high scores being represented by large ranks, and low scores being represented by small ranks. The analysis is then carried out on the ranks rather than the actual data. Two of the most common non-parametric procedure are the Mann-Whitney test and the Kruskal-Wallis test.

Mann-Whitney U Test: This is used to test the differences between two conditions when different participants have been used in each condition. It is a non-parametric equivalent of the independent t-test. In our study, each of the 19 factors are tested under two groups of Male and Female faculty to determine whether there is a significant difference between the two groups. The responses of each faculty is ranked and then the mean ranks of 77 male and 102 female faculty are computed. The Mann-Whitney test statistic U is calculated using an equation in which n_1 and n_2 are the sample sizes of the male and female group and R_1 is the sum of ranks for group 1. (i.e. $n_1 = 77$, $n_2 = 102$ for all the 19 factors). $U = n_1 n_2 + n_1 (n_1 + 1) / 2 - R_1$. In each of the 19 Null Hypothesis which states that there is no significant difference between the male and female group for each factor, if $p < 0.05$, then the Null Hypothesis is rejected and it shall be concluded that there is a Significant difference between the male and female group.

Table no. 3.2: MANN-WHITNEY U-TESTfor Gender

Factor	Gender	N-179	Mean Rank	Mann-Whitney U	Asymp.Sig. (2-tailed)
Do not find doctors reliable in assessing preventive health	Male	77	89.45	3885.000	0.898
	Female	102	90.41		
Cost effective preventive health check-up is missing	Male	77	90.44	3893.500	0.918
	Female	102	89.67		
Promptness to clinical/supporting services are inefficient	Male	77	94.12	3610.000	0.323
	Female	102	86.89		
Prolong waiting for health check-up	Male	77	93.39	3666.000	0.404
	Female	102	87.44		
Inefficient post check-up counseling	Male	77	91.03	3847.500	0.803
	Female	102	89.22		
Negligence of doctors and staff towards health check-up plan	Male	77	95.96	3468.000	0.148
	Female	102	85.50		
Rude/ improper Behavioral of the staff of hospital	Male	77	88.64	3822.000	0.734
	Female	102	91.03		
Self- medication as the first recourse for the majority of health issues	Male	77	87.47	3732.500	0.545
	Female	102	91.91		
Perceptional impact towards the preventive health check-ups	Male	77	85.34	3568.500	0.270
	Female	102	93.51		
Negligence towards the own preventive health	Male	77	91.01	3849.500	0.813
	Female	102	89.24		
ack of time coordination between workplace and health check-ups at hospital	Male	77	85.11	3550.500	0.238
	Female	102	93.69		
Limited information in making crucial choices for preventive health care packages	Male	77	91.65	3800.000	0.698
	Female	102	88.75		
Under developed Residential Area/location which results in accessible health facilities	Male	77	92.95	3700.000	0.480
	Female	102	87.77		
Dependent on family members decisions for undergoing health check-ups	Male	77	92.23	3755.000	0.593
	Female	102	88.31		
Cross cultural differences amongst family or with society regarding preventive health	Male	77	84.23	3482.500	0.174
	Female	102	94.36		
Unapproachable due to religious practices or religious beliefs	Male	77	86.92	3689.500	0.460
	Female	102	92.33		

Factor	Gender	N-179	Mean Rank	Mann-Whitney U	Asymp.Sig. (2-tailed)
Unapproachable due to family structure	Male	77	86.49	3657.000	0.406
	Female	102	92.65		
Due to Cultural deprivation, peer group differences	Male	77	81.70	3288.000	0.048
	Female	102	96.26		
Influence of Racial and ethnic groups in the society	Male	77	86.75	3676.500	0.433
	Female	102	92.46		

Table no. 3.2 is the statistical 'Mann Whitney U test' that indicates the mean ranks of the male and female along with the 2 Tailed asymptomatic significance of the study. Since none of the 19 factors has an Asymptotic Significance of less than 0.05, we conclude that for each of the 19 factors, there is no significant difference gender-wise.

An interpretation of the first factor "Do not find doctors reliable in assessing the preventive health", the mean rank of female is 90.41 which is higher than the male of 89.45 and the P value 0.898 is greater than 0.05, which means there is no significant difference in gender concerning the reliability of doctor's in assessing preventive health. So, the null hypothesis fails to reject.

Kruskal-Wallis Test: This test compares several conditions when different participants take part in each condition and the resulting data violate an assumption of one-way independent ANOVA. It is a non-parametric counterpart to the One-way independent ANOVA. The theory for the Kruskal-Wallis test is very similar to that of the Mann-Whitney (and Wilcoxon rank-sum) test, and is based on ranked data. One simply orders the scores from lowest to highest, ignoring the group to which the score belongs, and then assign the lowest score a rank of 1, the next highest a rank of 2 and so on. After ranking the data, one collects the scores back into their groups and simply add up the ranks for each group, denoted by R_I (where I is used to denote the particular group). The test statistic, H, has a Chi-square distribution with one value of the degrees of freedom, which is one less than the number of groups (k-1). N is the total sample size and $n_i$bs the sample size of a particular group.

$$H= [12/N (N-1)][\sum R_i^2 / n_i - 3(N+1)]$$

Like a one-way independent ANOVA, Kruskal-Wallis just tells us whether a difference exists; it does not tell us exactly where the difference lie. To find that difference, one may do several Mann-Whitney tests between pairs of conditions, but only accept them as significant if they are significant below 0.5/number of tests. If one predicts that the means will increase or decrease across the groups in a certain order, then Jonckheere's trend test may be done. If the value at Asymp. Sig. is less than 0.05, then the groups are significantly different

KRUSKAL-WALLIS TEST for Age Group Division

Table 3.3 below provides the Chi-Square test statistic H for 19 factors with N=179 and 4 age groups (21-30, 31-40, 41-50, More than 50) for each factor with degrees of freedom 3.

Table no. 3.3: KRUSKAL-WALLIS TEST for Age Group Division

Age Group		N	Mean Rank	Chi-Square H	Asymp. Sig.
Do not find doctors reliable in assessing preventive health	21-30 Years	26	56.58	20.025	0.000
	31-40 Years	47	81.36		
	41-50 years	62	98.87		
	More than 50	44	106.5		
Cost effective preventive health check-up is missing	21-30 Years	26	61.88	13.568	0.004
	31-40 Years	47	89.03		
	41-50 years	62	90.90		
	More than 50	44	106.4		
Promptness to clinical/supporting services are inefficient	21-30 Years	26	44.02	27.681	0.000
	31-40 Years	47	96.79		
	41-50 years	62	96.24		
	More than 50	44	101.1		
Prolong waiting for health check-up	21-30 Years	26	47.69	24.836	0.000
	31-40 Years	47	93.59		
	41-50 years	62	99.00		
	More than 50	44	98.49		
Inefficient post check-up counseling	21-30 Years	26	75.63	2.740	0.433
	31-40 Years	47	92.88		
	41-50 years	62	91.71		
	More than 50	44	93.00		
Negligence of doctors and staff towards health check-up plan	21-30 Years	26	61.02	12.551	0.006
	31-40 Years	47	90.55		
	41-50 years	62	93.28		
	More than 50	44	101.9		
Rude/ improper Behavior of the staff at the hospital	21-30 Years	26	61.52	13.837	0.003
	31-40 Years	47	88.03		
	41-50 years	62	94.02		
	More than 50	44	103.27		
Self- medication as the first recourse for the majority of health issues	21-30 Years	26	71.46	21.551	0.000
	31-40 Years	47	70.78		
	41-50 years	62	96.60		
	More than 50	44	112.2		
Perceptional impact towards the preventive health check-ups	21-30 Years	26	73.31	9.983	0.019
	31-40 Years	47	84.06		
	41-50 years	62	88.42		
	More than 50	44	108.4		
Negligence towards the own preventive health	21-30 Years	26	77.62	2.713	0.438
	31-40 Years	47	88.19		
	41-50 years	62	91.31		
	More than 50	44	97.40		
ack of time coordination between workplace and health check-ups at hospital	21-30 Years	26	69.35	11.546	0.009
	31-40 Years	47	80.46		
	41-50 years	62	95.36		
	More than 50	44	104.8		
Limited information in making crucial choices for preventive health care packages	21-30 Years	26	80.54	6.534	0.088
	31-40 Years	47	80.91		

Age Group		N	Mean Rank	Chi-Square H	Asymp. Sig.
	41-50 years	62	90.31		
	More than 50	44	104.9		
Under developed Residential Area/location which results in accessible health facilities	21-30 Years	26	75.35	6.714	0.082
	31-40 Years	47	100.4		
	41-50 years	62	94.77		
	More than 50	44	80.83		
Dependent on family members decisions for undergoing health check-ups	21-30 Years	26	72.75	4.106	0.250
	31-40 Years	47	93.27		
	41-50 years	62	94.83		
	More than 50	44	89.90		
Cross cultural differences amongst family or with society regarding preventive health	21-30 Years	26	73.29	6.211	0.102
	31-40 Years	47	99.88		
	41-50 years	62	85.06		
	More than 50	44	96.28		
Unapproachable due to religious practices or religious beliefs	21-30 Years	26	61.88	10.444	0.015
	31-40 Years	47	97.56		
	41-50 years	62	92.89		
	More than 50	44	94.47		
Unapproachable due to family structure	21-30 Years	26	71.94	4.897	0.179
	31-40 Years	47	94.51		
	41-50 years	62	89.02		
	More than 50	44	97.23		
Due to Cultural deprivation, peer group differences	21-30 Years	26	95.35	1.229	0.746
	31-40 Years	47	90.96		
	41-50 years	62	91.74		
	More than 50	44	83.36		
Influence of Racial and ethnic groups in the society	21-30 Years	26	87.21	1.732	0.630
	-40 Years		.36		
	-50 years		.51		
	ore than 50		.77		

Interpreting the 1st factor, “Do not find doctors reliable in assessing preventive health” the mean rank of more than 50 years is 106.48, which is higher than the other age groups. The statistical analysis shows that the Asymp. Sig. P value is 0.000 which is less than 0.05 and hence there is a significant difference in age with reference to that factor, leading to the rejection of the null hypothesis.

Summarizing all the 19 factors as below, there are 10 factors in which the results are significant while for 9 factors, the results are not significant:

Factors with Significant difference between age groups:

1] Do not find doctors reliable in assessing preventive health

2] Cost effective preventive health check-up is missing

3] Promptness to clinical/supporting services are inefficient

4] Prolong waiting for health check-up

5] Negligence of doctors and staff towards health check-up plan

6] Rude/ improper Behavior of the staff at the hospital

7] Self- medication as the first recourse for the majority of health issues

8] Perceptional impact towards the preventive health check-ups

9] Lack of time coordination between workplace and health check-ups at hospital

10] Unapproachable due to religious practices or religious beliefs

Factors with NO Significant difference between age groups:

1] Inefficient post check-up counseling

2] Negligence towards the own preventive health

3] Limited information in making crucial choices for preventive health care packages

4] Under developed Residential Area/location which results in accessible health facilities

5] Dependent on family members decisions for undergoing health check-ups

6] Cross cultural differences amongst family or with society regarding preventive health

7] Unapproachable due to family structure

8] Due to Cultural deprivation, peer group differences

9] Influence of Racial and ethnic groups in the society

KRUSKAL-WALLIS TEST for Department Division

Table 3.4 below gives the Kruskal-Wallis test for Department-wise data by calculating the Chi-Square test statistic H for 19 factors with N=179 and 6 departments (Medical, Dental, Physiotherapy, Pharmacy, Nursing and Management), each factor with 5 degrees of freedom

Table no. 3.4: KRUSKAL-WALLIS TEST for Department Division

Department		N	Mean Rank	Chi-Square H	Asymp. Sig.
Do not find doctors reliable in assessing preventive health	Medical	98	108.32	35.460	0.000
	Dental	37	81.42		
	Physiotherapy	11	52.77		
	Pharmacy	14	49.39		
	Nursing	15	61.53		
	Management	4	71.75		
Cost effective preventive health check-up is missing	Medical	98	103.07	19.382	0.002
	Dental	37	82.24		
	Physiotherapy	11	74.41		
	Pharmacy	14	61.82		
	Nursing	15	60.03		
	Management	4	95.38		
Promptness to clinical/supporting services are inefficient	Medical	98	101.50	26.660	0.000
	ental		.38		
	ysiotherapy		.14		
	armacy		.25		
	Nursing	15	56.43		
	Management	4	80.13		
Prolong waiting for health check-up	Medical	98	99.80	42.263	0.000
	Dental	37	108.15		
	Physiotherapy	11	44.27		
	Pharmacy	14	76.61		

Department		N	Mean Rank	Chi-Square H	Asymp. Sig.
	Nursing	15	43.00		
	Management	4	31.00		
Inefficient post check-ups counseling	Medical	98	95.04	9.771	0.082
	Dental	37	94.08		
	Physiotherapy	11	59.32		
	Pharmacy	14	90.39		
	Nursing	15	66.07		
	Management	4	101.50		
Negligence of doctors and staff towards health check-up plan	Medical	98	104.64	22.417	0.000
	Dental	37	78.81		
	Physiotherapy	11	61.86		
	Pharmacy	14	63.75		
	Nursing	15	67.90		
	Management	4	86.88		
Rude/ improper Behavioral of the staff of hospital	Medical	98	104.69	31.352	0.000
	Dental	37	80.15		
	Physiotherapy	11	47.73		
	Pharmacy	14	60.54		
	Nursing	15	91.07		
	Management	4	36.50		
Self- medication as the first recourse for the majority of health issues	Medical	98	99.82	24.224	0.000
	Dental	37	100.24		
	Physiotherapy	11	60.45		
	Pharmacy	14	65.86		
	Nursing	15	49.47		
	Management	4	72.50		
Perceptional impact towards the preventive health check-ups	Medical	98	96.03	10.501	0.062
	Dental	37	94.76		
	Physiotherapy	11	67.50		
	Pharmacy	14	68.96		
	Nursing	15	68.67		
	Management	4	113.75		
Negligence towards the own preventive health	Medical	98	91.12	5.721	0.334
	Dental	37	92.92		
	Physiotherapy	11	89.86		
	Pharmacy	14	99.86		
	Nursing	15	62.47		
	Management	4	104.75		
Lack of time coordination between workplace and health check-ups at hospital	Medical	98	90.16	8.924	0.112
	Dental	37	105.61		
	Physiotherapy	11	80.36		
	Pharmacy	14	78.11		
	Nursing	15	66.30		
	Management	4	98.75		
Limited information in making crucial choices for preventive health care packages	Medical	98	96.01	7.250	0.203
	Dental	37	85.14		
	Physiotherapy	11	103.91		
	Pharmacy	14	80.57		
	Nursing	15	65.87		
	Management	4	73.00		
Under developed Residential Area/location which results in accessible health facilities	Medical	98	89.98	4.975	0.419
	Dental	37	98.89		
	Physiotherapy	11	77.77		
	Pharmacy	14	81.93		
	Nursing	15	94.87		
	Management	4	51.75		
Dependent on family members decisions for undergoing health check-ups	Medical	98	92.72	4.903	0.428
	Dental	37	81.45		

Department		N	Mean Rank	Chi-Square H	Asymp. Sig.
	Physiotherapy	11	90.18		
	Pharmacy	14	109.54		
	Nursing	15	76.93		
	Management	4	82.50		
Cross cultural differences amongst family or with society regarding preventive health	Medical	98	82.51	10.311	0.067
	Dental	37	99.91		
	Physiotherapy	11	93.59		
	Pharmacy	14	114.61		
	Nursing	15	79.00		
	Management	4	127.13		
	Total	179			
Unapproachable due to religious practices or religious beliefs	Medical	98	89.71	22.591	0.000
	Dental	37	103.20		
	Physiotherapy	11	40.00		
	Pharmacy	14	120.36		
	Nursing	15	75.00		
	Management	4	62.38		
Unapproachable due to family structure	Medical	98	91.98	6.927	0.226
	Dental	37	88.68		
	Physiotherapy	11	83.86		
	Pharmacy	14	112.32		
	Nursing	15	66.07		
	Management	4	82.13		
Due to Cultural deprivation, peer group differences	Medical	98	84.65	3.693	0.594
	Dental	37	95.01		
	Physiotherapy	11	106.68		
	Pharmacy	14	98.64		
	Nursing	15	88.33		
	Management	4	104.75		
Influence of Racial and ethnic groups in the society	Medical	98	85.64	8.809	0.117
	Dental	37	97.53		
	Physiotherapy	11	69.77		
	Pharmacy	14	107.25		
	Nursing	15	86.93		
	Management	4	133.88		

Interpreting the 1st factor "Do not find doctors reliable in assessing preventive health", the mean rank of Medical is 108.32, which is higher than the other departments. The statistical analysis shows that the Asymp. Sig. P value is 0.000 which is less than 0.05 and hence there is a significant difference in departments with reference to that factor, leading to the rejection of the null hypothesis.

Summarizing all the 19 factors as below, there are 8 factors in which the results are significant while for 11 factors, the results are not significant:

Factors with Significant difference between Departments:

1] Do not find doctors reliable in assessing preventive health

2] Cost effective preventive health check-up is missing

3] Promptness to clinical/supporting services are inefficient

4] Prolong waiting for health check-up

5] Negligence of doctors and staff towards health check-up plan

6] Rude/ improper Behavior of the staff at the hospital

7] Self- medication as the first recourse for the majority of health issues

8] Unapproachable due to religious practices or religious beliefs

Factors with NO Significant difference between Departments:

1] Inefficient post check-up counseling

2] Perceptional impact towards the preventive health check-ups

3] Negligence towards the own preventive health

4] Lack of time coordination between workplace and health check-ups at hospital

5] Limited information in making crucial choices for preventive health care packages

6] Under developed Residential Area/location which results in accessible health facilities

7] Dependent on family members decisions for undergoing health check-ups

8] Cross cultural differences amongst family or with society regarding preventive health

9] Unapproachable due to family structure

10] Due to Cultural deprivation, peer group differences

11] Influence of Racial and ethnic groups in the society

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The study conducted here is focusing on the health professionals who are working in a teaching hospital. The rate of involvement of one's own health and correct initiatives after instances has been taken care of or not has been analyzed. A questionnaire structure has been designed which is inclusive of all factors divided into the prominent list of institutional, individual and the social factors that are affecting their behavior and due to which the employee faces the hurdles towards the analysis of their own health. It includes several factors such as a delay due to time issues, negligence towards own health or low interest in participation for clinical check-ups. The sample size is collected as per the stratified pattern from all the 6 departments of the college, namely Medical, Dental, Pharmacy, Physiotherapy, Nursing and Management.

Statistical analysis of the collected data has also been conducted through SPSS software and as per the results, effective solution to the affected factors are recommended as well.

Based on the Frequency response of 179 teaching hospital faculties, the top five factors affecting health check-up are (1) Lack of time coordination between workplace and health check-ups at hospital (126; 70.4%); (2) Self-medication as the first recourse for the majority of health issues (120; 67.1%); (3) Prolong waiting for health check-up (117; 65.4%); (4) Cost effective preventive health check-up is missing (111; 56.5%) and (5) Promptness to clinical / supporting services are inefficient (98; 54.8%) with 3 from Institutional and 2 from Individual factors.

The Mann-Whitney U tests were applied to the gender based data of 179 professionals comprising of 77 male and 102 female faculty. Since none of the 19 factors has an Asymptotic Significance of less than 0.05, it was concluded that for each of the 19 factors, there is no significant difference gender-wise.

Kruskal-Wallis tests were first applied to data broken in 4 age groups, with 26 in the age group 26-30 years, 47 in 31-40 years, 62 in 41-50 years, and 44 in more than 50 years. Chi-Square H test was the non-parametric test used in Kruskal-Wallis. Amongst the 19 factors divided into 3 categories – 7 Institutional, 7 Individual and 5 Social, there were 10 factors which resulted in a significant difference between age groups with 6 institutional factors dominating the scene, followed by 3 from Individual and 1 from Social. Again Kruskal-Wallis was applied to data broken into 6 departments of Medical, Dental, Physiotherapy, Pharmacy, Nursing and Management and 8 factors resulted in a

significant difference between departments with 6 from Institutional, 1 from Individual and 1 from Social. In summary, Institutional factors were the most prominent factors affecting the utilization of preventive health check-ups amongst the healthcare professionals.

The common 8 factors which had a significant difference both age-wise and department-wise were: Do not find doctors reliable in assessing preventive health; Cost effective preventive health check-up is missing; Promptness to clinical/supporting services are inefficient; Prolong waiting for health check-up; Negligence of doctors and staff towards health check-up plan; Rude/ improper Behavior of the staff at the hospital; Self- medication as the first recourse for the majority of health issues, and Unapproachable due to religious practices or religious beliefs.

Rank wise, Institutional Factors was the most dominant reason followed by Individual and Social factors.

In spite of working in a health education sector, it is important for an individual to treat upon himself/herself and prioritize his/her health issues, with due encouragement from the employer.

RECOMMENDATIONS:

I. For Employees / Healthcare Professional

1. The healthcare professionals must focus on their own health first of all, as they are the care-takers of health to the entire community and so it's their responsibility to act wisely when it comes to their own health. There are several recommendations for them which can actually improve their personal health interest.
2. While participating more often in the health events of their own college or accompanying ~~during~~ the visits for their students, they can themselves take an appointment for their own health check-ups.
3. Encouraging colleagues or peer group for undergoing frequent health check-ups and making the environment physically and mentally healthy.
4. There must be frequent camps and awareness events for life threatening diseases or the outbreaks that are later diagnosed as a big threat to the individuals.
5. Being a responsible individual and not neglecting one's own health is the only way to move forward.

II. Employer / Business Implication:

1. The hospital's management must work upon the flexible schedules for the staff and working professionals which can save their time.
2. Well-designed healthcare check-up plans for the working personnel's should also be implemented in most of the well-known hospitals.
3. Delay of reports or check-ups and tests can become a major trouble towards the preventive health check-ups and so it should be less time-consuming.
4. It should be reliable and qualities based on that can actually make an individual rely upon the same.

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