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## ARE OUR PEOPLE HEALTH CONSCIOUS? RESULTS OF A PATIENTS SURVEY IN KARACHI, PAKISTAN

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**Background:** Life style is known to influence health and may be responsible for certain diseases. There is a need to document the life style on health among the Pakistani population. **Methods:** The study was conducted on patients visiting the Family Practice Center, the Aga Khan University, Karachi. A questionnaire was used to collect information on the demographic profile, and the life style on health. The ethical requirements for conducting the study were met. **Results:** 393 patients were surveyed. The majority were young married men, in either private or government service. Preference for consumption of fats/oils, sweets, spicy foods, salt, fruits/vegetables, tea, coffee, cola drinks and alcohol was found among 103 (26%), 84 (22%), 86 (22%), 110 (28%), 239 (61%), 319 (81%), 117 (30%), 253 (64%) and 13 (03%) respondents respectively. Hand washing after defecation, before eating food and after work was seen among 341 (87%), 296 (75%) and 256 (65%) respondents respectively. Brushing of teeth after eating food, before breakfast and bedtime was seen in 56 (14%), 346 (88%) and 176 (45%) respondents respectively. Preventive dental check-up was practiced by 102 (26%) of the respondents. Sleep of less than 6 hours per day among 74 (19%), water consumption of less than 1 liter daily among 84 (21%) and fish consumption on once a week basis among 173 (44%) respondents was found. Tobacco and betel nuts use was found among 69 (17%) and 79 (20%) respondents. **Conclusions:** We have documented a clear need to raise public awareness on the issue of life style on health. There is a need and we strongly recommend debate and further research, along with interventional strategies in line with the available evidence on healthy life style.

**Key-words:** Health behavior, Life style, Physical fitness, Diet

### INTRODUCTION

'Health' is defined as a state of the organism when it functions optimally without evidence of disease or abnormality<sup>1</sup>. Habits and customs influenced by the lifelong process of socialization, including social use of alcohol and tobacco, dietary habits, and exercise, all of which have important implications for health, are considered part of the life-style<sup>2</sup>.

An unhealthy life style has been blamed for a considerable morbidity and mortality in Pakistan. A higher prevalence of insulin-dependent diabetes mellitus and heart disease has been reported in Pakistan<sup>3,4</sup>, and an unhealthy life style may be partly responsible<sup>5</sup>. Tobacco chewing has been implicated as a cause, for a higher incidence of head and neck cancers in Pakistan<sup>6</sup>.

Therefore, a need was identified to study the life style on health among our patients.

### MATERIAL AND METHODS

A questionnaire-based cross sectional survey was carried out at the Family Practice Center, the Aga Khan University hospital in Karachi, Pakistan, from March to July 2002. It is a tertiary level teaching facility, in the private sector manned by ten family physicians. On an average, 24 patients consult each family physician daily.

A questionnaire was developed in keeping with the study objectives and included the demographic profile of the respondents.

Questions were directed at finding the preference for consumption of various food items, hand washing practices, brushing of teeth, preventive dental check-up, sleep in 24 hours, consumption of water, consumption of fish and the status of tobacco and betel nut chewing.

A process of convenience sampling was used, whereby available patients in the waiting area, were requested to participate in the study. The investigators administered the questionnaires, and the interviews were conducted all along the study period.

The objectives of the study were explained to the patient who signed the consent form, after assurance of confidentiality was provided.

Since we used a convenience sample, a sample size was not determined. EPI-info and SPSS computer software were used for analysis of the results.

### RESULTS

A total of 393 patients were surveyed. The majority were young married men, in either private or government service (Table-I). Respondents' preference for consumption or otherwise, of fats and oils, sweets, spicy foods, salt, fruits and vegetables,

tea, coffee, cola drinks and alcohol are listed (Table-2)

Table-1: Demographic Profile of the Study Population (n=393)

PARAMETER	NUMBER (%)
<b>SEX:</b>	
Males	254 (65)
Females	139 (35)
Mean Age in Years ± SD	32.9 ± 12.13
<b>Marital Status:</b>	
Single	144 (37)
Married	245 (62)
Others (Divorced/widowed)	04 (1.0)
<b>Educational Status:</b>	
Illiterate	13 (3.0)
Primary	18 (5.0)
Secondary	38 (10)
Matriculation	65 (16)
Intermediate	102 (26)
Graduate	117 (30)
Post-graduate	35 (9.0)
Diploma	05 (01)
<b>Occupational status:</b>	
Private service	124 (32)
Government service	25 (6.0)
Self employed	36 (9.0)
Unemployed	12 (3.0)
Student	76 (19)
Laborer	35 (9)
Others including housewives	85 (22)

Table-2: Respondents' attitude towards consumption of food and drink items (n=393)

Food/Drink item	Prefer to consume		Avoid consumption		Do not prefer /avoid	
	Number	%	Number	%	Number	%
Fats & Oils	103	26	63	16	227	58
Sweets	84	22	72	18	237	60
Spicy food	86	22	56	14	251	64
Salt	110	28	27	7	256	65
Fruits & vegetables	239	61	16	4	138	35
Tea	319	81	70	18	4	1
Coffee	117	30	271	69	5	1
Cola drinks	253	64	134	34	6	2
Alcohol	13	3	371	94	9	3

Respondents' practices with regard to hand washing, brushing of teeth, preventive dental check-up, duration of sleep, water consumption and eating of fish are listed (Table-3) Respondent's status with regard to chewing of tobacco and betel nuts is listed (Table-4).

## DISCUSSION

The demographic profile of the study population shows, that the majority of the respondents were well educated and better placed socio-economically, then the rest of the population in general. This is a limitation in the study since the more affluent and better educated people use the facility.

Table-3: Respondent's status of healthy practices (n=393)

Healthy practice	Number	%
<b>Hand washing</b>		
➤ After defecation	341	87
➤ Before eating	296	75
➤ After work	256	65
<b>Brushing teeth</b>		
➤ Before breakfast	346	88
➤ After each meal	56	14
➤ Before bedtime	176	45
<b>Preventive dental check-up</b>		
➤ <6 months	39	10
➤ 6 months-1 year	47	12
➤ >1 year	16	04
<b>Sleep in 24 hours</b>		
➤ <6 hours	74	19
➤ 6-8 hours	271	70
➤ >8 hours	45	11
<b>Daily drinking water consumption</b>		
➤ <1 liter	84	21
➤ 1-3 liter	258	66
➤ >3 liter	51	13
<b>Eat fish</b>		
➤ >Once a week	90	23
➤ Once a week	173	44
➤ <Once a week	90	23
➤ Never	40	10

Table-4: Respondent's status of chewing tobacco and betel nuts (n=393)

Status of Tobacco/betel nut chewing	Number	%
<b>Tobacco chewing</b>		
Yes	69	17
No	324	83
<b>Betel nut chewing</b>		
Yes	79	20
No	314	80
<b>Total</b>	<b>393</b>	<b>100</b>

According to the American Academy of Family Physicians, a diet high in fat and cholesterol can contribute to heart disease<sup>7</sup>. It is indeed a matter of grave concern, that a high proportion of the respondents (26%) have shown their preference for fats and oils in their diet, while a small proportion (16%) has expressed their intention of avoiding them.

The association between consumption of sweets and diseases including dental caries is well known<sup>8</sup>. It is again a matter of concern that 22% of the respondents have expressed a preference for sweets in their diets, while just 18% avoid them.

The association between high blood pressure and salt intake is well known<sup>9</sup>. It is again a matter of grave concern that only 7% of the respondents have said that they avoid salt in their diet while 28% expressed their preference for it.

The role of fruits and vegetables in the prevention of cancers<sup>10,11</sup> and heart disease<sup>12</sup> are well known. It is encouraging to see that 61% respondents have shown a preference for fruits and vegetables in their diet in comparison to 16% who haven't.

The role of tea consumption in the prevention of cancer and rheumatoid arthritis has

being quoted in literature<sup>13-15</sup>, while there are concerns about the possible adverse effects<sup>16</sup>. An overwhelming majority among the respondents (81%), have expressed their preference for tea drinking.

Caffeine consumption could contribute to an increased risk of coronary heart disease<sup>17</sup>, while it could have a preventive role in the risk of development of Parkinson's disease<sup>18</sup>. A preference of coffee and cola drinks among 30% and 64% of the respondents respectively, speaks for an overwhelming trend in favor of their consumption.

Alcohol consumption is considered part of an unhealthy lifestyle<sup>19</sup>, but fortunately preference for its consumption was minimal among the respondents.

Hand washing is considered an essential component of a healthy life style<sup>20</sup>. It is a matter of grave concern that 13% of the respondents are not washing hands after defecation.

Dental care including brushing of teeth and preventive dental check-ups are considered part of a healthy life style<sup>19</sup>. The status of dental care among the respondents needs improvement.

A significant number of respondents (19%) are getting less than six hours of sleep daily, which is a cause for concern and further enquiry<sup>21</sup>.

A decreased fluid intake and consequent urine concentration are among the most important factors influencing stone formation<sup>22</sup>. The climate of Karachi is warm and it is a cause for concern that 21% of the respondent's intake of water is less than a liter a day.

Consumption of fish and fish oils has been shown to have a favorable influence on the lipid metabolism<sup>23,25</sup>. We have found that still 10% respondents do not consume fish.

Tobacco chewing is common in South Asia<sup>26</sup>, and has been implicated in the causation of head and neck cancers<sup>6</sup> and sub-mucous fibrosis<sup>27</sup>. We have found a high prevalence of tobacco chewing (17%) in our study sample, and interventional strategies are required.

Areca nut (Betel nut) has been chewed since ancient times, but the habit is discouraged because of its oncogenic, addictive and dysaesthetic properties, in addition to having adverse effects on the mucosa, gums and teeth<sup>28</sup>. The fact that we have found a high prevalence of betel nut chewing (20%) among the respondents in our study, points towards a need for preventive strategies in this area.

Interventions have been found to be successful for life style modification in the general population<sup>19</sup>. Over two decades back, changes in life styles were reported to have lead to a decline in mortality from cardiovascular diseases in the developed world<sup>29</sup>. Substantial evidence is available

in favor of life style interventions leading to a better health outcome<sup>30</sup>.

## CONCLUSION

We have documented the life style on health among patients in Karachi, Pakistan.

A need is established for interventional strategy in order to promote healthy life style among our patients.

Further debate and research on the issue is strongly recommended.

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