KAP Study Regarding the Oral Health

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Abstract:

Objective: To assess the knowledge, attitudes and practice regarding the oral health in our community. Study Design: Cross Sectional Study. Study Place and Study Duration: from January 2016 to June 2018, in Dental Section Allied Hospital, Faisalabad, Fatima Jinnah Hospital, Multan and THQ Sillanwali. Material and methods: A total number of 378 patients were enrolled in this study. A questionnaire was developed to gather the information required for the determination of knowledge, attitudes and behavior of the patient towards oral health. The questionnaire comprised of thirty three questions regarding different aspects of oral health care. It involved questions regarding demographic information, knowledge, attitudes and behavior of the patients. Results: Regarding oral care, n=213 (56.3%) used tooth paste, n=260 (68.8%) patients brush once a day, n=178 (47.1%) used vertical technique for brushing. n=138 (36.5%) changed their brush every six months while n=60 (15.9%) changed their brush after one year. n=189 (50%) patients brush their teeth in morning, n=166 (43.9%) brush their teeth for cleaning purpose. n=144 (38.1%) visited to dentist when they felt pain. n=170 (45%) ignore, n=98 (25.9%) go to the dentist and n=110 (29.1%) use home remedies when they felt dental decay. n=239 (63.2%) patients’ family members brush their teeth regularly. Self-medication was observed as n=269 (71.2%). Conclusion: Although majority of the patients had good knowledge about health care but it was not associated with better attitudes, behavior and practicing of healthy habits. It can be suggested that poor socioeconomic conditions of majority of the public and lack of motivation for oral hygiene are the cause of poor behavior, attitude and practicing of dental care.

Keywords: Knowledge, Attitudes, Behavior, Oral Health

DOI: 10.7176/JMPB/52-14

Introduction:

In recent years a considerable reduction in incidence and severity of oral diseases has been observed especially in developed countries ¹. A systemic and organized dental care has been employed to improve the oral health in children and young adults ², ³. As a result of this systemically organized way of oral health care there has been significant decline in the frequency of dental caries in patients ⁴. Another advantage of this mode of health care is that, an increased number of adults are now able to keep their original denture for later stages of the life (5). But it has only improved overall dental health in developed countries unlike in developing countries where dental care is still one of the major health problems ⁶.

The reasons behind the improvement in overall dental health in developed and industrialized countries are the life style modifications, improved self care practices, changing living conditions and establishment of dental care programs. Moreover overall attitudes and behavior of general public have also grown ⁷. On the contrary in developing countries incidence of dental caries has increased gradually ⁸. It can be attributed to the fact that no dental or oral health care programs are performed in these communities.

Not many studies are there which could provide sufficient data regarding the knowledge, attitudes and behavior of the general population towards oral health care especially in developing countries like Pakistan. Therefore there is dire need to perform a study which can show the general trends of human population in our community towards oral hygiene.

Material and Method:

A total number of 378 patients were enrolled in this study. The study was performed from January 2016 to June 2018, in Dental Section Allied Hospital, Faisalabad, Fatima Jinnah Hospital, Multan and THQ Sillanwali. All the patients aged 10 to 70 presenting to the out-patient department with the complaint of tooth ache were included in
this study. Approval for the study was obtained from the Hospital Ethics Committee. Sample size was calculated from the reference study by Muhammad K. Al-Omili et al. Non probability consecutive type of sampling technique was used to collect the sample size. A questionnaire was developed to gather the information required for the determination of knowledge, attitudes and behavior of the patient towards oral health. The questionnaire comprised of thirty three questions regarding different aspects of oral health care. It involved questions regarding demographic information, knowledge, attitudes and behavior of the patients.

Demographic information included age, gender, education status, occupations, socio-economic status, type of family and religion. For knowledge regarding dental pain questions regarding causes the rapid dental decay, source of oral health knowledge and frequency of visit to dentist were asked. Similarly for attitude regarding dental pain treatment questions regarding, duration of pain, relieving factor, aggravating factor, type of pain, intensity, associated symptoms, time when pain started, time period between 1st incidence of pain and 2nd incidence of pain, approach in case of pain and any habit. Practicing of oral care was judged by asking question about methods of cleaning teeth, frequency of brushing, technique of brushing, change of brush, time of brushing, reason to brush the teeth, reason for last dental visit, approach if there is dental decay, brushing habits of family members, home remedies and medications. All the data thus calculated was subjected to statistical analysis. Computer software SPSS version 23 was used to analyze the data. Frequency and percentage was calculated for quantitative variables while mean and standard deviation was calculated for qualitative variables.

Results:

Three hundred and seventy eight patients were included in this study, both genders. Gender distribution revealed as n=257 (68%) males and n=121 (32%) females. The mean age of the patients was 26.14±3.15 years. There were n=196 (51.9%) patients literate and n=182 (48.1%) were illiterate. Occupations distribution observed as n=47 (12.4%) employee, n=61 (16.1%) worker, n=121 (32%) student, and n=149 (39.4%) house wives. Socio-economic status noted as n=92 (24.3%) upper class, n=125 (33.1%) middle class and n=161 (42.6%) lower class. n=250 (66.1%) were living in joint family and n=128 (33.9%) were nuclear family. Whereas, n=364 (96.3%) Muslims were and n=14 (3.7%) were non-Muslims. (Table I).

Knowledge regarding dental pain was assessed from the patients from different questions. It was seen that majority of the patients were unfamiliar about the knowledge regarding dental pain table II. Attitude towards dental pain treatment of the patients were shown in table III. It was observed that majority of the patients did not take proper remedy for dental pain.

Regarding to oral care, n=213 (56.3%) used tooth paste, n=260 (68.8%) patients brush once a day, n=178 (47.1%) used vertical technique for brushing. n=138 (36.5%) changed their brush every six months while n=60 (15.9%) changed their brush after one year. n=189 (50%) patients brush their teeth in morning, n=166 (43.9%) brush their teeth for cleaning purpose. n=144 (38.1%) visited to dentist when they felt pain. n=170 (45%) ignore, n=98 (25.9%) go to the dentist and n=110 (29.1%) use home remedies when they felt dental decay. n=239 (63.2%) patients’ family members brush their teeth regularly. Self-medication was observed as n=269 (71.2%). Distribution of home remedies is shown in table IV.
### Table 1

#### Demographic variables

| Variable                  | Number | Percentage |
|---------------------------|--------|------------|
| Age (years) Mean±S.D      | 26.14±3.15 |
| Gender                    |        |            |
| Male                      | 257    | 68         |
| Female                    | 121    | 32         |
| Education status          |        |            |
| Literate                  | 196    | 51.9       |
| Illiterate                | 182    | 48.1       |
| Occupations               |        |            |
| Employee                  | 47     | 12.4       |
| Worker                    | 61     | 16.1       |
| Student                   | 121    | 32         |
| House wife                | 149    | 39.4       |
| Socio-economic status     |        |            |
| Upper class               | 92     | 24.3       |
| Middle class              | 125    | 33.1       |
| Lower class               | 161    | 42.6       |
| Type of family            |        |            |
| Joint                     | 250    | 66.1       |
| Nuclear                   | 128    | 33.9       |
| Religion                  |        |            |
| Muslim                    | 364    | 96.3       |
| Non-Muslim                | 14     | 3.7        |
Table II

Knowledge Regarding Dental Pain

| Variable                                           | Number | Percentage |
|----------------------------------------------------|--------|------------|
| What causes the rapid dental decay                 |        |            |
| Decreased brushing frequency                       | 227    | 60.1       |
| Increased sugar intake                              | 75     | 19.8       |
| Cold drink consumption                              | 76     | 20.1       |
| Source of oral health knowledge                     |        |            |
| Media source                                        | 42     | 11.1       |
| Family members                                      | 151    | 39.9       |
| Friends                                             | 57     | 15.1       |
| Teachers                                            | 105    | 27.8       |
| Others                                              | 23     | 6.1        |
| If gums bleed what you do                           |        |            |
| Stop brushing                                       | 140    | 37.0       |
| Increase brushing                                   | 76     | 20.1       |
| Go to dentist                                       | 36     | 9.5        |
| Nothing                                             | 126    | 33.3       |
| Is oral health related to systemic health           |        |            |
| Yes                                                 | 292    | 77.2       |
| No                                                  | 86     | 22.8       |
| Frequency of visit to dentist                       |        |            |
| Every 6 months                                      | 18     | 4.8        |
| After a year                                        | 95     | 25.1       |
| Never                                               | 265    | 70.1       |
| Is it essential to visit dentist every 6 months     |        |            |
| Yes                                                 | 245    | 64.8       |
| No                                                  | 133    | 35.2       |

Table III

Attitude Regarding Dental Pain Treatment

| Variable                              | Number | Percentage |
|---------------------------------------|--------|------------|
| Duration of pain                      |        |            |
| 5 minutes                             | 45     | 11.9       |
| >5 minutes                             | 49     | 13.0       |
| 20 minutes                             | 40     | 10.6       |
| 30 minutes                             | 52     | 13.8       |
| Continuous pain                       | 192    | 50.8       |
| Relieving factor                      |        |            |
| Cold water gargles                    | 19     | 5.0        |
| Pain killers                          | 206    | 54.5       |
| Salt water gargles                    | 55     | 14.6       |
| Tooth paste                           | 98     | 25.9       |
| Aggravating factor                    |        |            |
| Mastication                           | 22     | 5.8        |
| Sweets                                | 116    | 30.7       |
| Hot and cold things                   | 151    | 39.9       |
| Food impaction                        | 28     | 7.4        |
| Sour things                           | 61     | 16.1       |
| Type of Pain was                      |        |            |
|                          | Count | Percentage |
|--------------------------|-------|------------|
| Spontaneous              | 92    | 24.3       |
| Stimulated               | 70    | 18.5       |
| Referred                 | 93    | 24.6       |
| Non-referred             | 123   | 32.5       |
| **Intensity**            |       |            |
| Mild                     | 90    | 23.8       |
| Moderate                 | 133   | 35.2       |
| Severe                   | 155   | 41.0       |
| **Associated with**      |       |            |
| Swelling                 | 163   | 43.1       |
| Fever                    | 37    | 9.8        |
| Sinus                    | 24    | 6.3        |
| Nothing                  | 154   | 40.7       |
| **Sensitivity to**       |       |            |
| Cold                     | 216   | 57.1       |
| Hot                      | 55    | 14.6       |
| Sweet                    | 76    | 20.1       |
| Sour                     | 31    | 8.2        |
| **When did the pain started recently** | | |
| Within one week          | 254   | 67.2       |
| Before one week          | 52    | 13.8       |
| Before 2 weeks           | 54    | 14.3       |
| Before 1 month           | 18    | 4.8        |
| **Time period between 1st incidence of pain and 2nd incidence of pain** | | |
| 1 week                   | 53    | 14.0       |
| 2 weeks                  | 95    | 25.1       |
| More than 2 weeks        | 113   | 29.9       |
| 1 month                  | 117   | 31.0       |
| **What was your approach in case of pain** | | |
| Good doctor              | 11    | 2.9        |
| Private clinic           | 26    | 6.9        |
| Brushing regularly       | 128   | 33.9       |
| Hakeem                   | 8     | 2.1        |
| Quack                    | 112   | 29.6       |
| Home remedy              | 78    | 20.6       |
| Dam                      | 4     | 1.1        |
| Homeopathy               | 11    | 2.9        |
| **Why did you delay seeking consultation** | | |
| Busy life                | 19    | 5.0        |
| Mild tolerable pain      | 95    | 25.1       |
| Non availability of conveyance | 58 | 15.3    |
| Costly treatment         | 71    | 18.8       |
| Pain is subsiding        | 38    | 10.1       |
| Hospital faraway         | 55    | 14.6       |
| Dental treatment fear    | 42    | 11.1       |
| **Do you have habit of** |       |            |
| Pan'chaliya              | 51    | 13.5       |
| Niswar                   | 26    | 6.9        |
| Smoking                  | 76    | 20.1       |
| Carbonated drinks        | 144   | 38.1       |
| Milk                     | 67    | 17.7       |
| None                     | 14    | 3.7        |
### Table IV

#### Practicing of Oral Care

| Variable                                | Number | Percentage |
|-----------------------------------------|--------|------------|
| **Methods of cleaning teeth**           |        |            |
| Tooth paste                             | 213    | 56.3       |
| Dentonic powder                        | 54     | 9.0        |
| Miswak                                  | 61     | 16.1       |
| Mouth wash                              | 48     | 12.7       |
| Tooth picks                             | 22     | 5.8        |
| **Frequency of brushing**               |        |            |
| Twice a day                             | 46     | 12.2       |
| Thrice a day                            | 5      | 1.3        |
| Once a day                              | 260    | 68.8       |
| Do not brush                            | 67     | 17.7       |
| **Technique of brushing**              |        |            |
| Horizontal                              | 170    | 45.0       |
| Vertical                                | 178    | 47.1       |
| Circular                                | 30     | 7.9        |
| **Change of brush**                     |        |            |
| Every 3 months                          | 115    | 30.4       |
| Every 6 months                          | 138    | 36.5       |
| After a year                            | 60     | 15.9       |
| When it gets rough                      | 65     | 17.2       |
| **Time of brushing**                    |        |            |
| In morning                              | 189    | 50.0       |
| Before breakfast                        | 13     | 3.4        |
| In evening                              | 22     | 5.8        |
| Before going to bed                     | 27     | 7.1        |
| Both evening and morning                | 127    | 33.6       |
| **Reason to brush the teeth**           |        |            |
| Cleaning purpose                        | 166    | 43.9       |
| Brightening of teeth                    | 81     | 21.4       |
| To stop bleeding                        | 24     | 6.3        |
| To stop cavity                          | 107    | 28.3       |
| **Reason for last dental visit**        |        |            |
| Extraction                              | 123    | 32.5       |
| Pain                                    | 144    | 38.1       |
| Filling of cavity                       | 111    | 29.4       |
| **On seeing dental decay what do you do** |     |            |
| Ignore                                  | 170    | 45.0       |
| Go to dentist                           | 98     | 25.9       |
| Use home remedies                       | 110    | 29.1       |
| **Do your family members brush their teeth regularly** |     |            |
| Yes                                     | 239    | 63.2       |
| No                                      | 139    | 36.8       |
| **What home remedies you use**          |        |            |
| Clove                                   | 22     | 5.8        |
| Salt water gargles                      | 25     | 6.6        |
| Honey                                   | 28     | 7.4        |
| Ice water                               | 32     | 8.5        |
| Tooth paste                             | 113    | 29.9       |
| Pain killers and antibiotics             | 72     | 19.0       |
| Interdental aid                         | 21     | 5.6        |
| Antibiotics                             | 33     | 8.7        |
| Pain killers                            | 32     | 8.5        |
| Medication                              |        |            |
| Self                                    | 269    | 71.2       |
| After consulting a doctor               | 109    | 28.8       |
Discussion:

Numerous factors are responsible for oral hygiene and oral health behaviors in a population. Positive reinforcement and proper informing about the health care regimen improves the compliance of the patients towards the treatment. Non compliance and non adherence to the oral hygiene practices is directly associated with lack of information and motivation. The more the knowledge a patient has regarding the dental care the more will be the possibility of him to seek preventive health care. Knowledge regarding the seriousness of the dental problem and benefits of the treatment available are essential for seeking of health care.

The results of our study suggest that overall behavior and attitude of people regarding the practice of oral hygiene and seeking the preventive health care in case of any complaint is very unsatisfactory. A large number of the patients who presented at the out-patient department were illiterate and belonged to poor socioeconomic class of the society. In previous studies poor attitudes and behavior have been attributed to the lack of oral health education programs. The problem in our community is not very different health education programs are conducted in very less amount which is why overall oral health knowledge, behavior and attitudes of the patient are very poor. Previous studies also suggest that in order to improve the oral health conditions among the children and adults, dependency of patients on health personnel should be decreased and patients should be encouraged to be responsible for their own health.

Similarly preventive approach should be emphasized over curative approach by improving the lifestyles especially in those living in rural areas. Community oriented oral health programs must be conducted. Another study in India indicated that overall behavior, attitudes and knowledge of oral health care among children and their parents needs improvements as results were not satisfactory enough. This requires health educations as well as improvement in socioeconomic conditions as these conditions are direct influence on the behavior and attitude of participants of the study.

Conclusion:

Although majority of the patients had good knowledge about health care but it was not associated with better attitudes, behavior and practicing of healthy habits. It can be suggested that poor socioeconomic conditions of majority of the public and lack of motivation for oral hygiene are the cause of poor behavior, attitude and practicing of dental care.

Conflict of interest:

There was no conflict of interest.

Funding Source:

No external funding source was used.

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