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KNOWLEDGE,ATTITUDE,AND PRACTICEOFORALHYGIENEAMONG HEALTHCARESTAFFINPESHAWAR,PAKISTAN,ACROSS-SECTIONALSTUDY

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Abstract

Aims:*Thisstudyaimedtoassesstheknowledge,attitude,andpractice(KAP)of oralhygieneamonghealthcareprofessionals*

MaterialsandMethods:
Adescriptivecross-sectionalsurveywasconductedamong377individuals, includingdoctors,nurses,supportmedicalstaff,andnon-medicalstaff.A structuredquestionnaireconsistingof19itemswasusedtogatherdataon demographics, knowledge, attitude, and oral hygiene practice. Data segregation andanalysiswasdoneonSPSSversion24.

Results:
Mostrespondents(62.3%)wereaged20-29years,and57.6%weremale.While 80.1%usedtoothbrushandtoothpaste,only43.0%brushedtwicedaily,and 48.0% practiced flossing. Awareness regarding oral hygiene's systemic impact was high (80.6%), yet (45.4%) had never had regular dental check-ups. Significant variations (P< 0.05)inoral hygiene practices wereobservedacross professionals, with better habits among doctors and nurses.

Conclusion:
Thestudyhighlightsacleargapbetweenknowledgeandpractice,particularly among non-medical support staff. Targeted oral health education is recommended to improve practices and reduce long-term health risks.

INTRODUCTION

Maintainingan independentlifedependsonpeople's capacity to control their regular personal hygiene routines, such as dental hygiene. (1) The state of a person'smouthaffects their overall health and well-being. (2) Oral health is a vital complex state that speaks,smiles,smells,tastes,touches,chews,swallows, and expresses a range of emotions through facial expressionswithoutexperiencingpain,discomfort,or craniofacialdisease.(3,4)Adisease-freeoral cavity and its surrounding components are considered to be indicatorsofgoodoralhealth.(5)Itisvitaltoevaluate the current incidence of poor oral hygiene practices among the local population, (6) Most oral health issuescanbepreventedbypracticingsimplebehaviors like regular brushing and flossing, (7) Maintaining gooddentalhealthisseenasafundamentalhuman right. (8). Maintaining excellent oral health requires knowledge of oral health, especially in developing nations. (9, 10) Health has been linked to aspects of individual knowledge, attitudes, and behaviors. (11) Oralhygienepracticesimproveoralhealtheducation, andadditionally,apositiveattitudeaboutoralhealth procedurespromotesbetterdentalpractices.(12,13, and14)thispracticeisahighcorrelationbetweenoral hygienehabitsandknowledge.Beingawareofone's presentstateofbothgeneralandoralhealth.(15,16, 17) Dentalhealth is linked to people's knowledge of oral health and proper oral hygiene practices. (18) Good oral hygiene is importantforeveryone,butit's especiallyimportantforhealthcarestaff(19,20)

The current literature emphasizes a significant gap between oral health awareness and real hygiene practices,althoughtherearefewstudiesthat

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specifically address this gap in Peshawar's diverse healthcarestaff.Understandingknowledge,attitudes, andpractices(KAP)iscrucialfordevelopingsuccessful public health treatments in light of the city's distinctiveculturalandsocioeconomicenvironment. Thestudyaimstoreducethegapbyscrutinizingthe KAP regarding oral hygiene among Peshawar inhabitants. Even though there is much research on oralhealthinPakistan,veryfewspecificallytargetthe oralhygienehabitsandunderstandingofthePeshawar healthcarestaff.Toevaluatetheknowledge,attitude, and practice of oral hygiene among the health care staff in Peshawar Pakistan.

MATERIALSANDMETHODS:

Thisdescriptivecross-sectionalstudywascarriedout in Peshawar, the provincial capital of Khyber Pakhtunkhwa, Pakistan. This research consisted of health care staff Peshawar, and it ensured that data collectionwasdoneinasensitiveandrespectfulway by taking into account the social and cultural norms of the health care staff in Peshawar. The initial step wastogetethicalpermissionfromtheethicalreview committee at City University of Science and InformationTechnology,Peshawar,Pakistan.Atotal sample size of the current study was 377 The health carestaffinPeshawar,Pakistan,wasthesubjectofthe study.Datawascollectedfromthehealthcarestaffin Peshawar,Pakistan.Allstudyparticipantsreceiveda self-administered questionnaire form with 19 questions that is designed in English. Every participantreceivesinstructions onhowtocomplete the survey questionnaire pro forma as well as an explanationofthesurvey'snatureandgoal.Datawas analyzedusingstatisticalsoftware(SPSS)version24.

RESULTS

This survey included 377 respondents. Males were 217,andfemaleswere160.Therewere86doctors,83 nurses, 82 support medical staff, and 126 support non-medicalstaffincluded.Theageiscategorizedinto groups in which the maximum participant was aged between20and29years(62.3%),the30-39agegroup contains23.9%ofthetotalsample,8.8%ofthe40-49 age group, and 5.0% of the 50-60 age group.

Summary

There are notable differences when comparing the oral hygiene habits of physicians, nurses, and nonmedical support personnel. While nonmedical support staff frequently employ conventional or unknown cleaning techniques, the majority of participantsonlyuseatoothbrushandtoothpaste(P = 0.000). Additionally, there are differences in the frequencyofbrushing,doctorsusuallybrushtwicea day,whilemanynonmedicalprofessionalsonlybrush once(P=0.000).Allgroupsbrushtheirteethbefore breakfast,althoughthereisnosignificantdifference inthisbehavior(P=0.066).Althoughbrushingtime is typically 1-2 minutes, there is no significant difference between groups (P = 0.232), and doctors andnursesaremorelikelytobrushafterdinner(P= 0.000).

Differences in professional practices are further highlighted by interdental cleaning behaviors. In comparison to nonmedical personnel, doctors floss far more frequently (P = 0.000), and the majority of nonmedical staff either don't use flossing thread or don't know about flossing possibilities (P = 0.000). Doctors and nurses are also more likely to gargle or rinseaftermeals(P=0.000).Aclearcontrastcanbe seen in routine dental visits: although support staff frequentlyskipdentalappointmentsunlesstheyarein pain,doctorsareproactivewithcheckups(P=0.002). Additionally, many support staff members are not aware that toothbrushes need to be changed every threemonths,althoughdoctorsaremorelikelytodo so (P = 0.001).

Despite differences in dental hygiene habits, many habitsaresharedbyallgroups.Thereisnosignificant difference in the prevalence of tooth sensitivity (P = 0.556)ortheamountoftoothpasteused(P=0.172). Nonetheless, sensitivity concerns are more likely to promptphysiciansandnursestoseekdentalcounsel (P = 0.002). There is variation in toothbrush bristle preference; medical professionals prefer soft or medium bristles, while nonmedical personnel are more likely to use hard bristles (P = 0.000). Finally, whereas support personnel had lower knowledge levels(P=0.000andP=0.045,respectively),doctors and nurses have much higher understanding of the systemic impact of poor dental hygiene and the detrimentaleffectsofexcessivesweets,alcohol,and smoke.

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CROSSTABALUTIONS

Question	Doctor	Nurse	Support medicalstaff	Support nonmedical Staff	Pvalue *
Toothbrush and Toothpaste	20.42	17.77	18.82	23.07	
Powder	0	0.79	1.06	0.26	
Stick	1.06	1.59	0.53	0.5k3	0.000
Mouthwash	0.79	1.32	1.06	0.26	
Question	**Doctor**	**Nurse**	**Support medicalstaff**	**Support nonmedical staff**	**Pvalue ***
Once	6.10	10.34	8.75	17.50	
Twice	13.5	10.34	11.67	7.42	
Aftereverymeal	2.91	1.32	0.79	2.12	0.000
Occasional	0.26	0	0.53	6.36	
Other	0.53	0.53	0.26	9.28	
Question	**Doctor**	**Nurse**	**Support medicalstaff**	**Support nonmedical staff**	**Pvalue ***
Beforebreakfast	16.71	12.73	14.05	18.83	0.066
Afterbreakfast	6.10	9.28	7.69	14.58	
Question	**Doctor**	**Nurse**	**Support medicalstaff**	**Support nonmedicalstaff**	**Pvalue ***
Yes	17.50	16.71	15.11	14.58	0.000
No	5.30	5.30	6.63	18.83	
Question	**Doctor**	**Nurse**	**Support medicalstaff**	**Support nonmedicalstaff**	**Pvalue***
Lessthanaminute	1.32	0.53	1.59	3.18	
1 min	6.10	6.89	9.01	10.07	
1-2min	10.07	10.34	8.48	12.73	0.232
Morethan2min	5.30	4.24	2.65	7.42	
Question	**Doctor**	**Nurse**	**Support medicalstaff**	**Support nonmedicalstaff**	**Pvalue ***
Yes	15.91	10.61	10.87	10.61	0.000
No	6.89	11.40	10.87	22.81	
Question	**Doctor**	**Nurse**	**Support medicalstaff**	**Support nonmedicalstaff**	**Pvalue ***
Flossingthread	10.07	4.24	7.69	4.77	
Waterflosser	3.71	2.38	1.85	3.71	
Interdentalbrush	2.91	3.97	1.59	1.59	
Notapplicable	6.10	11.40	10.61	23.34	0.000
Question	**Doctor**	**Nurse**	**Support medicalstaff**	**Support nonmedical staff**	**Pvalue ***

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Yes	15.64	17.54	12.99	12.73	0.000
No	7.16	4.50	8.75	20.68	
Question	**Doctor**	**Nurse**	**Support medicalstaff**	**Support nonmedical staff**	**Pvalue ***
Onceayear	8.75	11.93	6.63	8.75	0.000
Twiceayear	6.36	5.57	3.44	3.18	
Never	7.69	4.50	11.67	21.48	
Question	**Doctor**	**Nurse**	**Support medicalstaff**	**Support nonmedical staff**	**Pvalue ***
Yes	18.30	16.44	16.44	19.36	0.002
No	4.50	5.57	5.30	14.05	
Question	**Doctor**	**Nurse**	**Support medicalstaff**	**Support nonmedical staff**	**Pvalue ***
Every3months	16.97	16.18	15.91	17.50	0.001
Every6months	2.38	2.65	3.44	5.03	
Don’tknow	3.44	3.18	2.38	10.87	
Question	**Doctor**	**Nurse**	**Support medicalstaff**	**Support nonmedical staff**	**Pvalue ***
Peasize	7.16	6.63	4.59	12.73	0.172
Halfofthetoothbrush surfaceiscovered	10.34	8.48	10.07	11.40	
Morethanhalfofthe toothbrushsurfaceis covered	5.30	6.89	7.16	9.28	
Question	**Doctor**	**Nurse**	**Support medicalstaff**	**Support nonmedical staff**	**Pvalue ***
Extrasoft	3.18	2.91	1.06	3.44	0.000
Soft	7.42	10.61	11.14	9.01	
Medium	11.67	8.22	8.75	15.11	
Hard	0.53	0.26	0.79	5.83	
Question	**Doctor**	**Nurse**	**Support medicalstaff**	**Support nonmedical staff**	**Pvalue ***
Yes	15.91	16.71	14.58	22.54	0.556
No	6.89	5.30	7.16	10.87	
Question	**Doctor**	**Nurse**	**Support medicalstaff**	**Support nonmedical staff**	**Pvalue ***
Yes	11.14	12.46	7.95	9.54	0.002
No	6.63	6.63	9.01	15.38	
Don’thavea sensitivityproblem	5.03	2.91	4.77	8.48	

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Question	Doctor	Nurse	Support medicalstaff	Support nonmedical staff	Pvalue *
Yes	19.09	19.09	19.89	22.54	0.000
No	3.71	2.91	1.85	10.87	
Question	**Doctor**	**Nurse**	**Support medicalstaff**	**Support nonmedical staff**	**Pvalue ***
Yes	20.15	19.09	20.15	26.52	0.045
No	2.65	2.91	1.59	6.89	

Discussion

Theirhigher oralhygienepracticesmay beexplained bythefactthatthemajorityofparticipants(62.3%) were between the ages of 20 and 29. Of those who used a toothbrush and toothpaste,80.1%only used it twice a day, and only 41.6% brushed at the suggested time. Due to a lack of preventive treatment, 45.4% of people never went to the dentist. Of those who frequently replaced their toothbrushes, 66.6% did not know when to do it. The results were comparable to research by Abate, B., et al. (2020) among Medhanealem students in Ethiopia. A large number of the population in this studydemonstratedpositivecompliancewithregard to the frequency of tooth brushing. According toa studydoneinKoforiduabyOpoku etal, these results are in line with research from Bangladesh, Dhaka Tahazid et al(2022), Zambia,Uganda,andCroatia Kamal *et at* (2021)that indicated a high degree of knowledgeamongthehealthcarestafftheyexamined.In oursurvey,136(36.1%)participantssaidtheysawa dentist once a year, 70 (18.6%) said they saw one twiceayear,andanoteworthy45.4%saidtheynever sawadentist.Althoughrespondentsgenerallyhave a solid basis of knowledge and positive attitudes. Eventhoughmoststudentshadgoodattitude91.9% and sufficient understanding of OH 77.2% there wasstillreluctancetoattendthe dentist inaddition just 41% of subject practiced appropriate OH, the resultswerecomparabletoresearchbyNishikaetal, (2024)weassesseddentalhygienehabitsusingthese criteria avoid pricking your gums brush your teeth often and rinse your mouth thoroughly with clean waterbothbeforeandaftermeals.Theresultswere comparable to research by Michael et al, (2024). Outcome The study founded that more than half 54.1%ofthe126respondentshadexcellent knowledge of oral hygiene. Most of them 130 or 55.8% also maintained good dental hygiene the resultswerecomparabletoresearchbyperciousetal (2024)

Andlastly,Igivetheimpressionthatboththenurse andthedoctorarequiteknowledgeable.Theircases areinorder.Doctorsandnursesworrythatwedon't have these diseases. Perhaps they know more than theaveragepersondoes.Asaresult,thedoctorand nurse have more knowledge. And it cannot be knowntothegeneralnonsupportmedicalstaffwho maybecautious.Andasaresult,itispreferablefor the general public to stay informed.

Conclusion

Although individuals in Peshawar have a positive attitude toward oral health, their practices are not sufficient, according to research done among the health care staff. Significant differences in knowledgelevelsaccordingtoeducationwerealso discovered in this study, which emphasizes the necessity for facilities for health care centers and focused oral health education programs. The participants in the survey exhibited the highest favorable attitudes toward dental hygiene. When it came to oral hygiene, the majority of survey participants preferred toothbrushes and toothpaste. Overall,themajorityofrespondentshadafavorable attitude,sufficientknowledge,andpoororalhygiene practices.

Limitations

In this study, a small health care staff has been examined. To preserve the health care staff generalizability,extensiveresearchinvolvingawide rangeofgeographiclocationsisrequired.Thisstudy iscross-sectional; itonlycollects dataonknowledge,

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attitude, and practice at a single point in time with no follow-ups. On this topic, more cohort studies with follow-ups are required.

Recommendations

Planning preventative oral health care initiatives. Encouraging routine or problem-focused dental examinations.Educatingthecommunityaboutoral hygiene through health campaigns. Oral health education initiatives and seminars would be made easier with the use of this data.

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