

Smoking Cessation Advice “The Best Time to Quit Smoking was the Day you Started, the Second-Best Time to Quit is Today”

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ABSTRACT

Objective: To decide the mindfulness and competency of dental and clinical experts in offering smoking discontinuance guidance.

Study Design: Cross-sectional study.

Place and Duration of Study: Tertiary Care Teaching Institute, Rawalpindi Pakistan, from Oct 2019 to Feb 2020.

Methodology: A pilot study carried out at 15-20 participants for questionnaire validation and reviewed by independent experts for face validity. A final questionnaire comprised of ten multiple-choice questions in addition to demographic profile. The minimum sample size required for the study was 261, where the national prevalence of smoking was 21.6%.

Results: A total of 550 participants participated in the study and data were extracted from their responses. There were 335 (61.0%) males and 215 (39.0%) females in the study group, with a mean age of 32.4 ± 4.3 and the age range 25 – 44 years. Among total respondents, 380 (69%) were qualified dental and medical practitioners whereas 170(31%) were medical and dental students. Only (40%) respondents were confident in rendering cessation advice whereas (60%) were not. Only (15.5%) participants declared that they received formal training to counsel for quitting smoking. Among the total 234 (100%) males were confident in giving in advice whereas none of the females were sure enough p value <0.001 .

Conclusion: Despite smoking is of immense concern regarding Public Health, Medical and dental professionals are not proficient enough in smoking cessation counselling. A major fraction of mortality and morbidity is attributable to it; therefore, importance is to be enlightened as a preventable cause of death

Keywords: Nicotine, Smoking, Tobacco

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INTRODUCTION

Smoking is a socially acceptable addiction with the magnitude of adverse outcomes. According to a demographic survey in Pakistan (46%) men and (5.7%) women are smokers with an average daily consumption of 177 million cigarettes per day in the year 2014. 90% of lung cancer cases in Pakistan are attributable to smoking, claiming 100,000 lives each year.^{1,2}

In the year 2018-19 (23.9) million population configured to be a tobacco addict with women and children’s victims of passive smoking. Manifestations in the oral cavity, eye diseases (macular degeneration, etc.) skin diseases (psoriasis, etc.) respiratory tract (pneumonia, etc.), cardiovascular pathologies (ischemic heart disease, stroke, etc.) and carcinomas (lung, urinary bladder, etc.) are few haunting effects of smoking.^{3,4}

World Tobacco Day is celebrated every year on 31st May with a motto to limit tobacco consumption

and promotion of health benefits due to smoking cessation. Smokers’ acquaintance with nicotine refrain them from withdrawal alternative to which is nicotine replacement therapy (NRT). Nicotine replacement therapy (NRT) enhances the success of management by 50%–70%.^{5,6}

Nicotine has absorption from mucous membranes and in the bloodstream stimulates the brain owing to the release of epinephrine and dopamine, which ultimately induce pleasurable effects that can be antagonized by pharmacological options (varenicline and bupropion).^{7,8}

Varenicline reported to be a first-line drug that acts as a partial nicotine receptor agonist in the brain. Clonidine is a blood pressure-lowering agent with central effects therefore can be utilized in addictions including tobacco consumption, but adverse effects profile limits treatment compliance. Sustained-release preparation of bupropion is effective in the endeavor of smoking cessation.⁹

Comprehensive Three A’s protocol constitutes record smoking status, advice regarding personal

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health benefits, and action on the patient's response. Elaborated guidelines on smoking cessation advice comprises of Five A's protocol which includes a record of smoking status, non-judgmental advice to smokers regarding benefits of abstinence, motivation assessment, assistance in withdrawal, referral for specialized care, and follow up.¹⁰

Our research was based on the hypothesis that medical and dental practitioners are not equipped with basic knowledge and training about smoking cessation counselling. This basic part of public health is not adequately covered in curriculum despite of magnitude of mortality and morbidity attributable to it.

METHODOLOGY

This cross-sectional study was carried out at Tertiary care teaching hospital, Rawalpindi (Pakistan) from October 2019 to February 2020. Approval was taken from the ethical research committee of the Institute (ERC Number-206/ERC).

Inclusion Criteria: Dental and medical practitioners, medical and dental students of either gender and age group were included in the study.

Exclusion Criteria: None

Study constituted of a paper-based and web-based questionnaire devised by relevant studies on the subject. A pilot study carried out at 15–20 participants for questionnaire validation and reviewed by independent experts for face validity. After modification according to feedback, the final questionnaire comprised of (10) multiple-choice questions (MCQs). The minimum sample size required for this cross-sectional study was 261 with confidence level 95% and margin of error 5%, where the national prevalence of smoking considered to be (21.6%) as reported by Shah *et al*,¹¹ with non-probability consecutive sampling methodology questionnaire was distributed among (n=550) participants. Responses collected (100%) feedback rate and results extracted out of them. We included medical and dental practitioners, furthermore, added a proportion of medical and dental students as well. A cover letter elaborating on the purpose of the questionnaire was provided and verbal consent was obtained before the endorsement of the questionnaire. A brief overview of the questionnaire provided shown in Table-I.

Data were entered and analysed by using data management software IBM Statistical Package for Social Sciences (SPSS version 23.0). The descriptive statistics of continuous variables were presented as mean and standard deviation, while categorical data

frequencies and percentages were used. Categorical grouped data were analyzed by either Chi-square or Fischer-exact test as applicable. The *p*-value of ≤ 0.05 was considered to be statistically significant.

Table-I: Questionnaire for the study

Profession (Dental/Medical Practitioners, Medical/Dental Student)
Clinical Experience
Routine Screening Practice for Smoking Dependence
Have been through Smoking cessation counselling training to date
Knowledge of effects of Smoking on Oral tissues
Nicotine Dependence
Effective Nicotine Replacement Intervention
Intervention preferred to extend smoking cessation advice to masses
First-line drug for Smoking Cessation
Patient get offended by asking about his or her Smoking Status
Suggest Formal Smoking suspension guiding Instructional Meetings

RESULTS

A total of 550 participants participated in the study and data was extracted from their responses. Total enrolled were 335 (61.0%) males and 215 (39.0%) females in the study group, with a mean age of 32.4 ± 4.3 and the age range 25–44 years. Among total respondents, 380 (69%) were qualified dental and medical practitioners whereas 170 (31%) were medical and dental students. 192 (35%) participants had experience <5 years, 93 (17%) >5 years and 72 (13%) >10 years. Only 220 (40%) respondents were confident in rendering smoking cessation advice whereas 330 (60%) were not. Only 90 (16.4%) participants declared that they received formal training to counsel for quitting smoking whereas 470 (85.5%) were not adherent with the subject. Among them 353 (64.2%) agreed with the idea of formal training workshops and sessions for counselling however 197 (35.8%) did not support the idea (*p*-value 0.58). Results were summarized in Table-II.

Table-II: Responses on interventions.

	Frequency n (%)
Effect on Oral Tissue	
Xerostomia	44 (8%)
Candidiasis	137 (25%)
Leukoplakia	88 (16%)
All of the Above	281 (51%)
Nicotine Replacement Therapy	
Patches	176 (32%)
Gums	226 (41%)
Lozenges	115 (21%)
Oral Spray	33 (6%)
Drugs	
Bupropion	83 (15%)
Varenicline	28 (5%)
Clonidine	82 (15%)
Unsure	357 (65%)

175 (51.5%) doctors and dentists stated that patients feel offended on smoking cessation advice whereas 210 (100%) students exhibited similar response p -value <0.001 as elaborated in Table-III. Regarding opinion about mode of counselling campaigns opinions of doctors and students were not statistically significant p -value .99 as shown in Table-IV.

Table-III: Patient Counselling Response.

		Role		p -value
		Qualified Dentists/ Medical Doctors	Students	
Patient Offended Response on Advice	Yes	175 (51.5%)	210 (100.0%)	$<0.001^*$
	No	165 (48.5%)	-	
	Gender			
		Male	Female	
	Yes	234 (100%)	151 (47.8%)	
	No	-	162 (52.2%)	

*Significant p -value calculated by Fischer Exact Test

Table-IV: Counselling campaigns.

		Role		p -value
		Qualified Dentists/ Medical Doctors	Students	
Counselling Campaigns	Group Counselling	112 (32.9%)	72 (34.3%)	0.99^*
	Individual Counselling	85 (25.0%)	52 (24.8%)	
	Media Campaigns	57 (16.8%)	34 (16.2%)	
	Web-Based Counselling	86 (25.3%)	52 (24.8%)	

*Insignificant p -value calculated by fischer exact test

234 (100%) males were confident in giving in advice whereas none of the females were sure enough p -value <0.001 . Among them 90 (38.5%) male participants had experienced some type of instructional course to assist patients with stopping smoking though among females none of the members pronounced any such preparation p -value <0.001 . Practicing clinicians were confident in counselling regarding 3 A's Protocol whereas student lack grip on the subject as enumerated in Table-V, p -value 0.001.

About 122 (62.6%) routinely screen patients for smoking dependence, reporting to their clinics via history whereas 73 (37.4%) reluctant to ask this question. Upon analysis of nicotine dependence, evaluated through tools such as cigarettes in a day 93 (47.7%) in participants, years of smoking in 77 (39.5%) respondents. Patients inquired upon urge give up 14 (7.2%) and difficulty to give up at places where smoking forbidden 11 (5.6%).

DISCUSSION

Data analysis of our study demonstrated that there is a knowledge gap and lack of grip on smoking

abstinence. Only 220 (40%) respondents were confident in rendering cessation advice whereas 330 (60%) were not. Only 90 (16.4%) participants declared that they received formal training to counsel for quitting smoking whereas 470 (85.5%) lack adherence to the subject.

Shah *et al*, looked through 613 significant investigations. After beginning examination of edited compositions, 66 satisfied incorporation measures, and the last assessment of writing round-up with a determination of 22 investigations. The dominant part of studies made sense of puberty with a mean age \pm SD to 17 ± 2.7 years as a period of inception of smoking. In general, detailed recurrence of smoking by different examinations ranged from (16.7%–33%) [National normal (21.6%) with (36%) males and (9%) females). According to an examination led in a country zone of Pakistan (10%) of females admitted being dynamic smokers. Universality of waterpipe smoking or 'Shisha' was likewise found to be (33%).¹¹

Table-V: Comparison of professional's and student's confidence in a's protocol advice.

		Confidence		p -value
		Professionals	Students	
		Yes	No	
A's Protocol	Yes	132 (56.4%)	-	<0.001
	No	102 (43.6%)	316 (100.0%)	

* Significant p -value calculated by fischer exact test

Tobacco consumption is the leading cause of preventable mortality and morbidity, with tremendous money related and well being suggestions on the person in question. Along these lines it is viewed as an ethical commitment of human services experts to familiarize their customers with the perils, however, they would not have the option to do as such without energetic preparing and fastidious thoughtfulness regarding the subject. Year 2015 asserted 11.5% of deaths globally, males constituted 80% of the fatality. Ease of access to smoking cessation methodologies will benefit in befitting manner.^{12,13}

Vollath *et al*, conducted a study on the effectiveness of an innovative and interactive smoking cessation training module for dental students. The study was carried out to develop a training module on smoking cessation for fourth year dental students. Effectiveness was evaluated in terms of learning outcomes (knowledge, attitude communication skills), which were measured using written examinations and an objective structured clinical examination (OSCE) 6

months later. Results were compared control group who received standard training. Compared with the control group, students in the intervention group scored higher in the knowledge test (67.1% vs 41.8%; $p < 0.001$) furthermore in OSCE (74.9% vs 44.7%; $p < 0.001$). Moreover, retention of knowledge and skills (52.7% vs 36.5%; $p < 0.001$) and (71.8% vs 47.6%; $p < 0.001$) respectively was greater over 6 months. Therefore, we inquired our participants about formal training module on smoking termination counselling but unfortunately only (16.4%) were privileged to attain.¹⁴

Khalaf *et al*, assessed dental students' knowledge, perception, and attitude towards smoking, and emphasized on development of effective undergraduate training programs in smoking cessation counselling. Results of study elaborated that (98%) of the students showed a willingness to perform a brief smoking cessation intervention, (62%) of the students perceived their role in smoking cessation as difficult and (95%) agreed that leaders in the profession expected them to engage in a smoking cessation intervention. Results are similar to our study as (60%) participants were not confident to advise patients for abstinence.¹⁵

Alkhatatbeh *et al*, conducted a questionnaire-based cross-sectional study of 400 health care professionals recruited from primary healthcare centers in northern Jordan to analyse smoking prevalence, knowledge, and attitudes. (80%) of participants declared a lack of smoking-free guidelines were not implemented at primary healthcare centres. (90%) of participants were aware of the cardiovascular and respiratory hazards of smoking. (92%) believed in leading by example. (15.3%) were confident for abstinence counselling whereas (92.8%) were in the urge of training. As in our study results (60%) were not confident and (85.15%) required training.¹⁶

Al-Jdani *et al*, scrutinized the knowledge, attitude, and practices of primary healthcare providers in Saudi Arabia concerning smoking cessation guidelines and practices. (53.2%) participants were middle-aged and (25.4%) were family medicine residents and (24.6%) staff physicians. Out of them 14 were smokers and 8 (57.1%) tried to quit. (21.3%) declared the internet to be a prime source of information for smoking cessation advice offered by them to patients and (19.4%) stated postgraduate studies. Compliance with smoking cessation counselling was poor with a mean score of 35.25 ± 18.40 , however attitude was positive with a mean score of 76.81 ± 8.63 . The level of practice was average, with a mean score of 55.23 ± 21.54 . There was a significant

association between experience and knowledge ($p < 0.001$), furthermore, attitude ($p < 0.001$) and practice ($p < 0.001$).¹⁷

Al-Ateeq *et al*, described self-detailed perspectives and practice of essential medicinal services doctors in a military network, focal Saudi Arabia concerning smoking cessation counselling. (10) inquiries to survey demeanour though (6) to assess practice were structured. (56%) had not gone to a smoking discontinuance instructive program as for our situation (83.4%) had not experienced any preparation.

(75%) announced a positive disposition while (64.4%) expressed favourable practice. Advanced education levels had a critical relationship with inspirational demeanour than lower instruction levels ($p = 0.03$). Increasingly experienced doctors and those with inspirational mentality gave adherence to favourable practices ($p = 0.01$).¹⁸

Eldein *et al*, studied information, demeanor, and practice of family doctors for smoking suspension including (75) family doctors. Approved poll was utilized to gather information about their attributes, information, demeanor, and practice of smoking end advising, boundaries, and proposals of doctors. The best information, disposition, and practice scores among family doctors in the investigation test were (45.3%, 93.3%, and 44% respectively). (50%) family doctors prescribed instructional meetings to improve adherence with rules.¹⁹

This study provided a window of opportunity to endorse our imperfections, besides this communication helped us with attitude, perceptions, and rectifications. A comprehensive set of universal guidelines can be implemented to overcome hesitation in communication on the subject.

Under-developed nations can't defeat the difficulty of safe fundamental health necessities resultantly the basic subjects of essential wellbeing are tumble down. In this manner, the initial step is acclimatization and mindfulness with smoking suspension rules. There is a tremendous need for information and preparing modalities to fill in as an upgrade. Scholastic matchless quality should plan an instructive intercession to improve the nature of the smoking cessation guide.

CONCLUSION

Despite smoking is of immense concern regarding Public Health, Medical and Dental Professionals are not proficient enough in smoking cessation counselling. Major fraction of mortality and morbidity is attributable to it;

therefore importance is to be enlightened as a preventable cause of death

Conflict of Interest: None.

Author's Contribution

BA:; SA: Conception, Research analysis, Data collection and Manuscript Draft, FNK:; HRUE:; AM:; SMM: Conception, Research analysis, Data collection.

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