Global Journal of Medicine & Public Health

Examining the factors associated with tobacco use among adolescents in Qatar in 2018

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ABSTRACT

Background

Tobacco use is a global health concern and the negative impact it has on the health of the individuals that use it is indisputable. Between 2004 and 2013, Qatar had an overall increase in the prevalence of smoking, a decline in the role of media in promoting pro-tobacco and anti-tobacco messages, a drop in second hand smoke exposure at home, a rise in smoking prevalence in enclosed public spaces, and a decrease in smoking cessation. Therefore, study looks at the factors associated with tobacco use among school going adolescents in Qatar in 2018, five years after the previous survey.

Methods

Data from the 2018 Global Youth Tobacco survey were used to conduct a cross-sectional study. The data were collected from school going children using a two-stage sample design to select the respondents. Statistical analysis was conducted using STATA version 13. Multivariable logistic regression was used to identify the factors.

Results

Of the respondents, 78.1% were between 13 and 15 years and more than half were females (52.2%). The prevalence of overall current tobacco use was 14.6% (n=254), current Shisha smoking was 4.4%, current E-cigarette use was 10.8%, current smokeless tobacco use was 13.6% and current cigarette smoking was 6.7%. Having tobacco brand logo on personal belonging was positively associated with current tobacco use. Those whose mothers were the only parent smoking in the house were more likely to be current tobacco users compared to those with no parent smoking (AOR: 10.75; 95% Con. Int: 0.99-117.20, p=0.051). No difference between adolescents who were refused cigarette purchase in the past 30 days and those who were not regarding current tobacco use.

Conclusion

The study shows that smoking by mother and tobacco brand logo on personal belongings play a role in tobacco use among adolescents in Qatar. However, being sold cigarette or not does not prevent the adolescents from tobacco use.

Keywords: Adolescents, Tobacco, Qatar, E-cigarette, Shisha

GJMEDPH 2024; Vol. 13, issue 4 | OPEN ACCESS

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Conflict of Interest—none | Funding—none

INTRODUCTION

Tobacco is a plant that contains an additive substance known as nicotine, which makes it hard for people who use it to quit or stop.[1] The tobacco leaves are fermented and dried into various tobacco products such as cigarettes, pipes, bidis, hookah, kreteks and electronic cigarettes.[1] Also, these products can be consumed by smoking, chewing, or sniffing tobacco products.[1]Tobacco use has become a massive problem globally due to the high mortality and morbidity rates it has caused worldwide, and every form of tobacco is dangerous to people's health as it kills many people each year.[2] Globally, 22.3% of the population consumes tobacco, with 36.7% and 7.8% being men and women respectively.[3] WHO (2022)[3] reported that each year, more than 8 million people die from tobacco related causes, 7 million of those deaths are due to direct use of tobacco and 1.2 million are due to exposure to second-hand smoke exposure. Also, the consumption of tobacco has caused many high mortality and morbidity rates amongst all age groups. It causes various Non-Communicable Diseases (NCD) such as respiratory diseases, cardiovascular diseases, type 2 diabetes, and cancer.[4] For instance, people who smoke one cigarette a day have almost 40-50% increased risk of cardiovascular diseases.[5] Also, the use of tobacco amongst the youth has caused 11.5% deaths and 6% of Disability Adjusted Life Years (DALYs) leading to premature death.[2] However, there has been a decreasing trend globally in the use of tobacco amongst all age groups in the last two decades. Approximately 33.3% of the world's population aged 15 and above in the year 2000 used some form of tobacco products, 16.7% amongst females and 50% amongst males.[2] In 2015 the use of tobacco went down to 24.9%, with 9.5% in females and 40.3% in males.[2] With this declining trend in the use of tobacco, there is still an increasing number of tobaccos use in the African, Mediterranean, and South-East Asian regions.[2] Identifying the factors that are associated with tobacco use are important to curb the use.Moreover, in the Middle East and North Africa the prevalence of smoking tobacco has been estimated to be 5% in women and 50% in men and more than 50% of the people started smoking tobacco before the age of 10 years due to the lack of tobacco control in the regions.[6]A middle eastern country like Qatar had an overall increase in the prevalence of smoking among the adolescents between 2004 and 2013 even after the adoption of the Project 3.3 which drew on the WHO MPOWER by the Qatar's National Health Strategy.[7] The prevalence of current smoking among Qatari adolescents was 6.4%, 6.5% and 9.8% in 2004, 2007, and 2013 respectively.[7] However, there was a decline in smoking of other tobacco products between these years in Qatar. The prevalence of current smoking of other tobacco products was 13.7%, 12.8% and 7% in 2004, 2007 and 2013 respectively among the adolescents. According to the WHO, Qatar was the first country of both the Gulf Cooperation Council and the WHO Eastern Mediterranean Region to ratify the WHO Framework Convention on Tobacco Control (WHO FCTC) on 23 July 2004.[8] The smoke free policy has been implemented in indoor public places, with an equivalent of 54.8 USD fine for anyone who flaunt the policy. Also, all forms of direct or indirect advertisement of tobacco products and sponsorship of the events by tobacco industry have been banned. Tobacco retail stores are required to post signage stating legal age ≥18 of purchasing tobacco and the pictorial warning standard that mandates presence of combined text and picture warning to occupies no less than 50% of the front and back of the tobacco products package has been introduced in 2012.[9] There has been the adoption of MPOWER measures such as taxation, health warning, and offering help to quit has seen inspiring progress. This current study looked at the prevalence of tobacco use more than a decade after the ratification of the WHO FCTC in 2018 among the adolescent population. The study wanted to know if there was reduction in the prevalence of current smoking and further reductions in the current smoking of other tobacco products, five years after the 2013 global youth tobacco survey. Al-Dahshan et al,[7] looked at the prevalence of tobacco use among the adolescent population in Qatar between 2004-2013 which was conducted after the ratification of the FCTC. During this period, the main findings showed an overall increase in the prevalence of smoking, a decline in the role of media in promoting pro-tobacco and anti-tobacco messages, a drop in second-hand smoke exposure at home, a rise in smoking prevalence in enclosed public spaces, and a decrease in smoking cessation among the Qatari adolescents.

Materials and Methods

A cross-sectional study was conducted among Qatari adolescents aged 11-17 years using the 2018 global

ISSN# 2277-9604

youth tobacco survey (GYTS). GYTS is a nationally representative school-based survey of students in grades associated with ages 11 to 17 years. GYTS uses a standard core questionnaire, sample design, and data collection protocol. It uses a global standardized methodology that includes a two-stage sample design with schools selected with a probability proportional to enrolment size.[10] The classes within selected schools are chosen randomly and all students in selected classes are eligible to participate in the survey. The questionnaire covers the following topics: tobacco use (smoking and smokeless), cessation, second-hand smoke (SHS), pro- and anti-tobacco media and advertising, access to and availability of tobacco products, and knowledge and attitudes regarding tobacco use. The questionnaire is self-administered, and anonymous to ensure confidentiality. A total of 2,071 eligible students in grades 7-9 completed the present survey. The overall response rate was 89.0%.

This study was approved by the IIEMSA Ethics Committee. Reference number R.000176 [REC]

Outcome variable

Our primary exposure of interest was self-reported tobacco smoking, categorized as current (current use of tobacco products, such as cigarettes, Shisha, smokeless and/or E-cigarettes, within the past 30 days prior to survey).

Independent variables

The following variables were included as independent variables: age, the amount of money that each of the students spent per week, cigarette accessibility, parent smoking, number of days that people smoked in the home, banning of smoking inside enclosed public places and outdoor public places, and exposure to anti-tobacco messages, and events (No and Yes).

Statistical Analysis

To account for selection probabilities and cluster sample design used in the Global Youth Tobacco Survey (GYTS), weight adjustments were made, and the data analysis was performed in a survey mode using the "svy" command in STATA version 12 (Stata Corporation, College Station, Texas, USA). Variable "FinalWgt" was used as the probability weight, "Stratum" was used as stage 1 strata and "PSU" for primary sampling unit (Stage 1 sampling unit). More information on the weighting process can be found on the WHO website (Reference). Descriptive analyses were carried out to explore the prevalence of current tobacco use and the differences between the groups were tested using Chi-square tests. Multivariable logistic regression was performed using backward deletion approach to determine the factors associated with current tobacco use among the Qatari adolescents as used in a previous study which looked at tobacco use in Qatar from 2004-2013.[7] All tests were two-tailed and statistical significance was set at $p< 0.05$.

Results

Most of the study respondents were between 13 and 15 years (78.1%) and more than half were females (52.2%). The prevalence of overall current tobacco use was 14.6% (n=254), current Shisha smoking was 4.4%, current E-cigarette use was 10.8%, current smokeless tobacco use was 13.6% and current cigarette smoking was 6.7%. Most of the respondents were in favor of banning smoking inside enclosed public places (70.8%) and smoking in outdoor public places (62.5%). **(Table 1).**

Table 1: Main characteristics of the study participants

Characteristic	%(n)
Gender	
Male	47.8 (1028)
Female	52.2 (1034)
Grade	
7	34.5 (714)
8	33.4 (636)
9	32.1 (705)
Age	
Early adolescent (11-12 years)	14.6 (305)
Middle adolescent (13-15 years)	78.1 (1608)
Late adolescents (16-17 years)	7.3 (157)
Money spent per week	

ISSN# 2277-9604

No money	10.1(207)
<20QR-100QR	55.9 (1153)
101QR->300QR	34.0 (692)
Current Shisha smoking	
No	95.6 (1783)
Yes	4.4 (85)
Current E-cigarette use	
No	89.2 (1705)
Yes	10.8 (208)
Current smokeless tobacco use	
No	86.5 (1771)
Yes	13.6 (280)
Current cigarette smoking	
No	93.3 (1859)
Yes	6.7 (138)
Current tobacco (Shisha, smokeless, E-cigarette and cigarette) use	
No	85.4 (1452)
Yes	14.6 (254)
Cigarette accessibility	
Very/fairly difficult	34.2 (694)
Very/fairly easy	16.9 (358)
Don't know	48.9 (993)
Parent smoking	
No parent smokes	70.2 (1445)
Both parents smoke	2.9 (58)
Only father smokes	20.9 (428)
Only mother smokes	0.7 (14)
Don't know	5.3 (109)
Days people smoke in the home	
None	76.3 (1560)
1-2 days	6.7 (134)
3-4 days	3.7 (73)
5-6 days	2.0 (42)
7 days	11.4 (232)
In favour of banning smoking inside enclosed public places	
No	29.2 (584)
Yes	70.8 (1428)
In favour of banning smoking in outdoor public places	
No	37.5 (751)
Yes	62.5 (1256)
Refused to be sold cigarettes in past 30 days	
Did not try to buy cigarette	89.8 (1810)
No	5.5 (113)
Yes	4.7 (98)
Refused to be served Shisha because of age in the past 30 days	
Did not try to get served Shisha in past 30 days	86.3 (1733)
No	6.5 (130)

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Yes	7.2 (151)
Anti-tobacco media messages	
No	53.8 (1064)
Yes	46.2 (9191)
Anti-tobacco messages events	
Did not go to events	44.5 (906)
No	32.2 (656)
Yes	23.3 (479)
Health warnings on cigarette packages	
No	41.3 (830)
Yes, did not think much of them	39.0 (789)
Yes, led to thinking about quitting	19.7 (404)
Health warnings on Shisha packages	
No	55.1 (1102)
Yes, did not think much of them	31.6 (633)
Yes, led to thinking about quitting	13.3 (270)
Taught about the dangers of tobacco use in class in past 12 months	
No	33.5 (679)
Yes	40.3 (808)
Don't now	26.2 (527)
Take tobacco product from best friend	
No	14.1 (286)
Yes	85.9 (1737)
Smoke from other people smoking Shisha is harmful	
No	32.2 (662)
Yes	67.8 (1373)
Tobacco brand logo on personal belonging	
No	85.4 (1662)
Yes	14.6 (285)

Table 2 shows that the prevalence of current tobacco use was higher among the male respondents than the female respondents (22.3% vs. 8.5%, p<0.001). Those in the late adolescent stages (16-17 years) were the most current tobacco users (25.2%), followed by the middle adolescents (13-15 years). However, there was no difference in the prevalence of current tobacco use with regards to the current grade or class of the respondents.

A greater proportion of students whose mothers were the only smokers in the home were current tobacco users (55.8%). Those who were refused to be sold cigarettes (57.7%) and refused to be served Shisha because of age (57.2%) in the past 30 days had higher prevalence of current tobacco use than those who were not.

Table 2: Prevalence of current tobacco use among adolescents in Qatar in 2018

Characteristic	%(n)	p-value
Gender		<0.001
Male	22. 3 (177)	
Female	8.5 (77)	
Grade		0.9122
7	14.0 (81)	
8	15.3 (82)	
9	14.4 (89)	

ISSN# 2277-9604

Age		<0.001
Early adolescent (11-12 years)	6.0 (16)	
Middle adolescent (13-15 years)	15.3 (208)	
Late adolescents (16-17 years)	25.2 (30)	
Money spent per week		0.4821
No money	13.7 (23)	
<20QR-100QR	13.9 (137)	
101QR->300QR	16.5 (93)	
Cigarette accessibility		<0.001
Very/fairly difficult	13.8 (77)	
Very/fairly easy	33.5 (89)	
Don't know	9.3 (84)	
Parent smoking		<0.001
No parent smokes	11.6 (146)	
Both parents smoke	35.6 (11)	
Only father smokes	21.3 (76)	
Only mother smokes	55.8 (4)	
Don't know	16.7 (14)	
Days people smoke in the home		<0.001
None	11.5 (156)	
1-2 days	22.3 (22)	
3-4 days	19.5 (11)	
5-6 days	25.4 (8)	
7 days	27.7 (51)	
In favour of banning smoking inside enclosed public places		0.1736
No	16.9 (81)	
Yes	12.8 (159)	
In favour of banning smoking in outdoor public places		
No	20.2(122)	0.001
Yes	10.5 (116)	
Refused to be sold cigarettes in past 30 days		<0.001
No	67.7 (46)	
Yes	57.7 (34)	
Did not try to buy cigarette	10.5 (165)	
Refused to be served Shisha because of age in the past 30 days		<0.001
No	65.7 (44)	
Yes	57.2 (43)	
Did not try to get served Shisha in past 30 days	9.9 (154)	
Anti-tobacco media messages		0.3226
No	12.9 (118)	
Yes	14.7 (115)	
Anti-tobacco messages events		0.2202
No	12.9 (74)	
Yes	17.2 (65)	
Did not go to events	14.0 (109)	
Health warnings on cigarette packages		0.006
No	8.7 (66)	

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Yes, did not think much of them	18.8 (124)	
Yes, led to thinking about quitting	18.1 (55)	
Health warnings on Shisha packages		<0.001
No	9.3 (94)	
Yes, did not think much of them	18.9 (100)	
Yes, led to thinking about quitting	25.4 (44)	
Taught about the dangers of tobacco use in class in past 12 months		0.852
No	17.4 (99)	
Yes	13.8 (96)	
Don't now	11.1 (50)	
Take tobacco product from best friend		<0.001
No	42.8 (84)	
Yes	10.3 (156)	
Smoke from other people smoking Shisha is harmful		<0.001
No	27.3 (123)	
Yes	9.6 (123)	
Tobacco brand logo on personal belonging		<0.001
No	11.6 (173)	
Yes	35.6 (63)	

Significance level = P value <0.05

In the multivariable logistic regression **(Table 3),** female students were less likely to be current tobacco users compared to the males (AOR:0.33; 95% Conf. interval: 0.22-0.48). Students from households where only mothers smoked were more likely to be current tobacco users compared to students whose none of the parents smoked (AOR: 10.75; 95% Conf. Interval: 0.99-117.20), Also, students whose fathers were the only smokers were more likely to be current tobacco users compared to those whose parents did not smoke (AOR: 1.89; 95% Conf. Interval: 1.14-3.14). Those who had tobacco brand logo on personal belongings are more likely to be current tobacco users compared to those who did not (AOR:1.96; 95% Conf. Interval: 1.04-3.68).

Table 3: Factors associated with current tobacco use among adolescents in Qatar in 2018

Characteristic	Adjusted Odds Ratio (95% Conf. Interval)	p-value
Gender		
Male	1.0	
Female	0.33 (0.22-0.48)	<0.001
Parent smoking		
No parent smokes	1.0	
Both parents smoke	2.82 (0.92-8.66)	0.680
Only father smokes	1.89 (1.14-3.14)	0.018
Only mother smokes	10.75 (0.99-117.20)	0.051
Don't know	0.44 (0.15-1.32)	0.129
Refused to be sold cigarettes in past 30 days		
No	1.0	
Yes	0.94 (0.39-2.25)	0.873
Did not try to buy cigarette	0.27 (0.13-0.60)	0.004
Refused to be served Shisha because of age		

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in the past 30 days		
No	1.0	
Yes	0.81 (0.25-2.60)	0.699
Did not try to get served Shisha in past 30 days	0.14 (0.05-0.36)	0.001
Smoke from other people smoking Shisha is harmful		
No	1.0	
Yes	0.42 (0.27-0.67)	0.001
Take tobacco product from best friend		
No	1.0	
Yes	0.23 (0.14-0.38)	<0.001
Tobacco brand logo on personal belonging		
No	1.0	
Yes	1.96 (1.04-3.68)	0.038

Significance level = P value <0.05

DISCUSSION

The study's findings revealed that gender, parental smoking, refusal to be sold cigarettes in the past 30 days, refusal to be served Shisha because of age in the past 30 days, second hand Shisha smoking, taking tobacco product from best friend and having tobacco brand logo on personal belonging were the factors associated with current tobacco use among the Qatari adolescents in 2018. The study found that the prevalence of current tobacco (Shisha, smokeless tobacco, E-cigarettes and cigarette) use was 15.8%. In 2004, 2007 and 2013, the prevalence of current smoking in Qatar were 6.4%, 6.5% and 9.8% respectively.[7] This was drastically reduced in 2018 to 6.7%. This decline in the prevalence of current tobacco use might be due to the adoption of a project (Project 3.3), which draws on the WHO MPOWER themes by the Qatar's National Health Strategy (2011–2016).[7] The MPOWER is a set of six components for tobacco control and include the following: monitoring tobacco use and prevention policies, protecting people from tobacco smoke, offering help to quit tobacco use, warning about the dangers of tobacco, enforcing bans on tobacco advertising, promotion and sponsorship and raising taxes on tobacco.[11] In Iran, the prevalence of smoking was between 2.7% and 20% among high school students, however, the pooled life-time prevalence of cigarette smoking was 13% in girls and 23% in boys.[2]Qatar became the first country of both the Gulf Cooperation Council and the WHO Eastern Mediterranean Region to ratify the WHO Framework Convention on Tobacco Control (WHO FCTC) on 23 July 2004. The country enacted a new tobacco control law, Law No. 10 of 2016, which, under Article 9, imposes a comprehensive ban on all forms of advertising, promotion and sponsorship of tobacco products across all media platforms, including radio, television, print, internet and social media.[8]This study showed that the prevalence of tobacco use among Qatari adolescents was 14.6%, This is lower than what was observed in the US in 2019. The National Youth Tobacco Survey (NYTS) study by the Centres for Disease Control and Prevention (CDC) reported that 27.5% of high school students currently use tobacco (CDC, 2020).[3,13] This could be due to the fact that there was dramatic increase in the use of e-cigarettes by additional 1.5 million students from 2017 to 2018. This increased the overall tobacco use among adolescents in the US in 2018 by 38% among high school students and by 29% among the middle school students.[14]. The prevalence of tobacco use by the students on one or more days in the 30 days before the survey was 10.6% in Afghanistan, 9.3% in Oman and 28.8% in Kuwait (Shaikh, 2020).[5,15] In Kuwait, there are no regulations on the use of e-cigarettes but the minimum age of purchase is 21 years. This could also have led to the high prevalence of tobacco use.[16] However, in Qatar, it is illegal to manufacture, sell, didtribute, display and import e-cigarette.[17] A contrast in tobacco usage between male and female adolescents was observed, with males exhibiting a higher prevalence. Tobacco use is socio-culturally acceptable, especially among males in Arab countries of which Qatar is one.[18] This finding was also

ISSN# 2277-9604

consistent with a report from Iran which revealed that 32.9% of men and 7.7% of women were current tobacco users .[4] In a study conducted by James et al, 2022, the overall prevalence of current tobacco use among male and female adolescents from 22 African countries was 19.1%, with more males (23.7%) than females (13.7%) being current users of any tobacco product.[20] Similar finding was reported by the National Survey on Drug Use and Health (NSDUH) in United States where males consistently report higher rates of smoking compared to females across different age groups.[21]The study's findings highlighted the important influence that parents' tobacco use has on their children's tobacco use behaviour, with teenagers being more likely to use tobacco especially if their moms smoke. This finding is consistent with the body of evidence that emphasises the important influence that parental modelling has on how children develop their smoking behaviours.[22] Due to the intergenerational transfer of smoking behaviour, family-centered interventions including parents and children are required to provide a smoke-free environment and discourage tobacco use at home. Supporting research from [23-26] confirms the significance of family-based interventions in lowering teen tobacco use. This is similar to a study conducted by Andersen et al where strong maternal antismoking attitudes are associated with 50% reduction in the prevalence of adolescence smoking.[7,27] This conforms that maternal modelling influences are strong in the adoption of health behaviours.[8,28]There was no association between being refused to be sold cigarette or served Shisha because of age and current tobacco use. This might show that the learners or adolescents might not be getting the tobacco products from buying. They are probably getting them from other places probably from their homes. The digital era has played a significant role in contributing to aggressive marketing and advertising strategies targeting the youth on social media platforms and online platforms. Tobacco companies have adapted their advertising to exploit digital platforms, using appealing visuals, trendy influencers, and interactive content to attract young users. These tactics have raised concerns among public health professionals, as the long-term adverse health impacts of e-cigarettes and smokeless tobacco remain uncertain. Thus, it is crucial to monitor and manage teen use of these new tobacco products to prevent them from adopting dangerous behaviours and safeguard their health and well-being. According to Al-Kuwari et al, expansion of free tobacco policy to include all public/indoor places as well as emerging tobacco products like e-cigarettes is highly recommended.[9] Monitoring of all forms of tobacco use and exposure in the community is also recommended.[9] Restricting marketing practices, and providing targeted educational campaigns can play a pivotal role in curbing the uptake of these harmful products among adolescents. The likelihood of current tobacco use was higher in people with the emblem of a tobacco company on their clothing or other possessions. It has been found through various studies, including Bedno et al. (2019)[9] and Hanewinkel et al. (2010),[30] that tobacco use tends to be influenced by marketing tactics. In order to prevent teenagers from starting smoking due to marketing tactics, it is crucial to put policies that reduce tobacco advertising and limit branding exposure.

Interestingly, the study did not find significant differences in tobacco use prevalence based on classroom education about the dangers of tobacco use. It aligns with existing literature indicating that standalone school-based tobacco prevention programs may be less effective than comprehensive, multi-component interventions.[31] The current study also showed that health warnings on cigarette packages, health warnings on Shisha packages, anti-tobacco media messages and anti-tobacco message events did not have any association with current tobacco use among the Qatari adolescents. However, learners who believed/perceived that smoke from other people smoking Shisha was harmful were not likely to use tobacco. This is a form of risk perception which is the thought and feeling about harm and it has been shown to be important in tobacco control efforts targeting prevention and cessation.[32] This is the opposite of risk-minimizing belief which justify smoking by undermining the harmful effects of smoking.[33] Future research should explore the effectiveness of long-term, evidence-based tobacco prevention strategies that encompass various elements, including peer influence, family involvement, and community support.

Implications and future works

The study results significantly impact tobacco control initiatives in and beyond Qatar. To effectively address the gender disparity in tobacco use, targeted interventions must be implemented considering the factors influencing smoking behaviour among males and females. According to Fernando, a lack of a gendered approach in tobacco control allows the

ISSN# 2277-9604

manifestation of harmful gender stereotypes, norms, and power structures that perpetuates gender inequalities and have unintended consequences in relation to the use, exposure, and tobacco control measures.[34] Culturally appropriate tobacco control interventions are critical to addressing the unique needs of different the two genders.[35] In a country where males are regarded as superior to females and also where the voices of the female citizens are not heard, any intervention identified will be based on males' tobacco use status. This requires health systems to consider gender-specific differences, needs, priorities, and power structures, and make efforts to provide equal opportunities and participation in tobacco control policies and programs, that benefit all gender groups.[34] Acknowledging the pivotal role parents play in preventing tobacco use within households is crucial. Educational programs can assist parents in fulfilling this vital responsibility with tremendous success. An example is the 'Steering Clear Project, which included 5 parts, the first part is a 12-chapter parent handbook, a videotape on the experiences of a former tobacco model, a Centers for Disease Control videotape and a comic book, pen and stickers for the child. This is followed by two calls from a counsellor. The third part is a six-page newsletter 14 months later, then access to a website is granted and the last part are prompts to physicians during appointments to encourage families to use the videos and website and talk about staying smoke-free. [36]Another programe is the "Smoke-free Homes" project which has five steps- Decide, Talk, Make it happen and Keep it up.[37] These programmes have been shown to be effective.Future research should continue to track usage patterns of alternative tobacco products like e-cigarettes and smokeless tobacco and investigate the factors that contribute to their rising appeal among teenagers. The appeal and accessibility of these products to young populations may need to be reduced through regulatory measures like product limitations and pricing.Moreover, classroom education's limited impact calls for innovative tobacco prevention approaches, including school-based programs integrated with community engagement and peer support such as ASSIST (A Stop Smoking in Schools Trial) which is a peer-led, school-based smoking prevention programme.[38] Stay Away from Tobacco (SAFT) is a program carried out in China to reduce cigarette smoking among middle and high school students through its effect on improving these students' refusal skills and changing their perceived mental and physical values from smoking. [39]Comprehensive tobacco control policies such as tobacco taxation, smoke-free laws, marketing restrictions, and youth access restrictions. Tobacco taxation and smoke-free laws have been shown to be effective in the reduction of the prevalence of smoking among the US adolescents.[40] encompassing multiple levels, from individual to societal, are essential to creating an environment that discourages tobacco use and promotes a tobacco-free culture among adolescents.

Conclusion

In conclusion, the study contributes valuable data on tobacco use among adolescents in Qatar and highlights the significance of gender, parental influence, and product marketing in shaping smoking behaviour. Addressing these factors through evidence-based interventions and policy measures will reduce tobacco use prevalence among adolescents and safeguard their health and well-being.

ISSN# 2277-9604

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