Banning tobacco products sales to adolescents in the Gulf Cooperation Council countries

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Abstract

Background: Tobacco use poses a challenge to public health in the Gulf Cooperation Council countries. Although restricting access to tobacco can reduce consumption among adolescents, there is limited knowledge of how to implement the tobacco sales ban policy in the sub-region.

Aim: To assess implementation of the ban on tobacco products sales to adolescents in the Gulf Cooperation Council countries as recommended in the WHO Framework Convention on Tobacco Control.

Methods: We used the school-based, self-reported, cross-sectional survey data collected by the Global Youth Tobacco Survey 2013–2018 among 13–15-year-old students from 5 of the 6 Gulf Cooperation Council countries. We analysed the pattern of implementation of the 4 provisions of the WHO Framework Convention on Tobacco Control that address the banning of tobacco products sales to adolescents.

Results: Implementation of key provisions related to the banning of tobacco products sales to adolescents varied among the countries. Bahrain, Qatar and United Arab Emirates implemented the 4 provisions, while Kuwait and Oman implemented only one. More than 50% of the adolescents who tried to purchase cigarettes were not refused.

Conclusion: The GCC countries should consistently implement and enforce the policy on banning tobacco products sales to adolescents as part of their tobacco control programmes. Programmes should seek to engage and educate merchants and adolescents on the health implications of tobacco use and the need to enforce compliance.

Keywords: tobacco, cigarette, adolescents, WHO FCTC, GCC, Gulf Cooperation Council

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Introduction

Tobacco use is a major problem in the Gulf Cooperation Council (GCC) countries (*1*). The GCC comprises Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates (UAE). These countries share similar political, economic and cultural characteristics (*2*). In the GCC countries, tobacco use is the leading cause of many diseases, including heart and respiratory diseases and cancer, for example, it was responsible for 16.3% of cancer cases in 2018 (*3*). The economic burden of smoking and second-hand smoke in GCC countries accounted for US$ 34.5 billion in 2016 (*4*). The estimated prevalence of tobacco use among adults (age ≥ 15 years) in 2018 ranged from 9.6% in Oman to 25.1% in Bahrain (*5*). Tobacco use among adults in most GCC countries has shown a little reduction of < 3% since 2000; however, Kuwait is expected to show a reduction of 9% by 2025 (*5*).

Although GCC countries have made remarkable efforts to address tobacco use, the prevalence among adolescents aged 13–15 years ranges from 11.6% in Kuwait to 1.7% in Oman, with a higher rate among males than females (*6*). The projection shows that smoking among young females is increasing in Bahrain, Qatar, Saudi Arabia and the UAE, particularly with the recent increase in the availability of e-cigarettes (*6*). Additionally, the susceptibility to initiating tobacco use among adolescents in GCC countries has increased over time (*6*). Dual use of conventional tobacco products and e-cigarettes is another challenge in addressing tobacco use among adolescents in GCC countries (*7*), and widespread use of e-cigarettes among adolescents increases the risk of smoking conventional cigarettes (*8*).

Adolescents can access tobacco products from commercial retail sources or non-commercial (also called social) sources, including borrowing from friends or stealing from parents or relatives (*9*). Petrol stations, kiosks and convenience stores are the primary places for adolescents to buy cigarettes, and it is common for sellers to miscalculate the age of purchasers or not to ask for age verification (*10*). Accessibility to tobacco products increases the risk of starting tobacco use among adolescents (*10*). Adolescents have limited disposable income; therefore, they tend to seek access to cheaper cigarettes, such as buying single cigarettes or mini-cigarette packs (*11*).

Banning tobacco sales to adolescents is presumed to reduce the number of commercial sources of tobacco (*12*). It is suggested that this policy reduces the risk of tobacco consumption among heavy-smoking adolescents

because most rely on commercial sources (13). Also, it works as a preventive measure to protect adolescents who have never used tobacco products from attempting to purchase tobacco (9). Integrating the policy of restricting the sale of tobacco to adolescents with other control programmes that affect non-commercial sources would be more effective in reducing access to tobacco (14).

Several countries, including Australia, Canada, Singapore and the United Kingdom of Great Britain and Northern Ireland, and several states in the United States of America (USA), have raised the legal minimum age for tobacco sales from 18 to 21 years to reduce consumption (15). In 2016, California legislators issued the California Tobacco 21 Law (T21) to reduce further the risk of starting tobacco use among adolescents and young adults (16). Two years later, a study assessed the effectiveness and impact of T21 using the Online California Adult Tobacco Survey and found that 66.2% of retailers agreed that people who start smoking before 21 years become addicted to tobacco products. The study also found that retailer violation rate decreased significantly from 10.3% to 5.7% after T21 (16).

The 6 GCC countries had ratified the World Health Organization Framework Convention on Tobacco Control (WHO FCTC) by 2006 (2). Article 16 of the FCTC bans tobacco sales to adolescents. The minimum legal age for purchasing tobacco products in GCC countries is 18 years, except Kuwait, which has a minimum age of 21 years (2, 17). Investigating tobacco use among adolescents aged 13–15 years in GCC countries from 2001 to 2004 showed that > 70% were not refused when purchasing tobacco products (18). Little is known about the impact of the FCTC provisions of banning tobacco sales to adolescents in GCC countries. Therefore, this study assessed the association between adolescents' access to cigarettes and FCTC provisions related to banning tobacco sales to that age group.

Methods

Data source

We used data from the 2013–2018 Global Youth Tobacco Survey (GYTS), a school-based, self-reported cross-sectional survey that collected data from students aged 13–15 years. It was anonymous, self-reported and voluntary and used multistage cluster sampling. Schools were chosen according to the enrolment size and classes were selected randomly. The survey gathered data about tobacco use and information on key topics related to FCTC provisions (19). Table 1 presents the details of GYTSs in each country. We used the WHO FCTC web-based implementation database (www.untobaccocontrol.org/impldb/) to collect data about the FCTC policy, mainly Article 16 banning tobacco sales to adolescents (17). We assessed 4 FCTC provisions related to banning tobacco sales to adolescents: (1) requiring sellers to post a clear and prominent indicator of legal age; (2) requiring sellers to request proof of age; (3) banning cigarette sales from directly accessible locations (e.g. store shelves); and (4) banning the sale of cigarettes individually or in small packets. FCTC provisions screened in this study aligned with the years of the GYTS data.

Study sample

All GCC countries, except Saudi Arabia, were included in this study. Saudi Arabia was excluded because of missing data for the FCTC provisions related to banning tobacco sales to adolescents. A range of inclusion and exclusion criteria was applied to the GYTS. First, male and female adolescents aged 13–15 years were included, and all other participants out of the age range were excluded. Second, the study included and compared adolescents who had used cigarettes during the previous 30 days (current users), and those who had ever tried cigarettes, even 1 or 2 puffs, during the past 30 days (ever users). Adolescents who had never used tobacco products even once in their lifetime were excluded. Third, only students who had attempted to purchase cigarettes from commercial sources in the 30 days prior to data collection were included. Table 1 presents the number of participants prior to applying inclusion and exclusion criteria.

Measures

The dependent variable was refusal to sell cigarettes to adolescents. This variable was defined as self-reported access to cigarettes via commercial sources. It was assessed by the question: "During the past 30 days, did anyone refuse to sell you cigarettes because of your age?" Adolescents who answered, "No, my age did not keep me from buying cigarettes", were coded "not refused". Those who responded, "Yes, someone refused to sell me cigarettes because of my age" were coded "refused." Independent variables included the 4 FCTC provisions related to banning tobacco sales to adolescents. Four dichotomous variables were created to represent each FCTC provision (0 = no, provision was not implemented; 1 = yes, provision was implemented). The dichotomous variables answered whether the country had implemented the provisions, as follows. (1) Did the country require sellers to post a clear and prominent indicator of legal age? (2) Did the country require sellers to request proof of age? (3) Did the country ban cigarette sales from any directly accessible location (e.g. store shelves)? (4) Did the country ban the sale of cigarettes individually or in small packets?

Statistical analysis

We examined the variations in implementing the 4 FCTC provisions related to banning tobacco sales to adolescents across the 5 GCC countries. First, descriptive statistics were performed to examine variations and patterns across the countries. Second, complex samples logistic regression analyses were performed to evaluate the association between refusal to sell cigarettes to adolescents and FCTC provisions related to banning the sale of tobacco to adolescents, after controlling for demographic factors. We estimated the association between predictors and outcome variables, holding all other variables constant. All analyses were weighted to

account for the complex sampling used in the GYTS. The analyses were performed using SPSS version 27.

Results

National implementation of key provisions related to banning the sale of tobacco products to adolescents was reported in the WHO FCTC web-based implementation database between 2010 and 2018 and varied among the GCC countries (Figure 1). Bahrain, Qatar and UAE implemented the 4 provisions, whereas Kuwait and Oman implemented only one provision.

The overall response rates for GYTSs ranged from 76.9% in Bahrain to 93.2% in UAE (Table 1). Of the 33 765 adolescents in the 5 GCC countries, 13 758 were current users and 20 007 were ever users (Table 2). More than 50% of the adolescents who tried to purchase cigarettes were not refused because of age.

The requirement for sellers of tobacco products to clearly indicate the legal age for purchase showed no relationship with the refusal to sell cigarettes to adolescents (Table 3). The obligation for sellers to request proof of age from purchasers was significantly associated with refusal to sell cigarettes to adolescents. Banning directly accessible sale of cigarettes (e.g. on open shelves) and banning the sale of cigarettes individually or in small packets increased the odds of refusal to sell cigarettes to adolescents.

Discussion

This study revealed that implementation of the ban on tobacco sales to adolescents varied across 5 GCC countries, with comprehensive implementation in Bahrain, Qatar and UAE. There was a significant association between refusal to sell cigarettes to adolescents and requesting proof of age, banning directly accessible sales of cigarettes, and prohibiting the sale of cigarettes individually or in small packs. The study also showed that the odds of refusal to sell cigarettes to current users increased with several provisions, including requesting identification from purchasers, banning direct access to tobacco products on store shelves, and banning individual cigarettes and small packs, which had a greater impact on current than ever users. Our findings suggest that implementing a policy of banning the sale of tobacco products to adolescents could reduce access, at least from commercial sources.

This study revealed that > 50% of adolescents in GCC countries were not refused purchase of tobacco, which indicated the availability and accessibility of tobacco products for adolescents. There is a need for active enforcement, such as regular inspections, retail licensures, compliance checks, sanctions, and merchant education to reduce tobacco use and change adolescents' perception of the availability and accessibility of tobacco products (*9*). Well-documented enforcement methods for banning tobacco sales to adolescents include imposing gradual fines for violation, revoking vendor licenses, and using decoy or undercover persons during unannounced inspections (*20*). The literature highlights the importance of enforcement to ensure the effectiveness of banning tobacco sales to adolescents. To achieve effective outcomes from enforcing tobacco control policies, previous studies have recommended stakeholder engagement (*21*, *22*). Archived documents indicate that GCC countries have engaged municipalities, educational bodies and healthcare professionals; however, limited information is available about the involvement of, and collaboration among, stakeholders (*23*). Thus, engagement of more stakeholders, including Ministries of Health, Justice, Education and Commerce, Chambers of Commerce, parents, and advocacy groups could strengthen enforcement of banning tobacco sales and reduce access to tobacco products by adolescents in GCC countries.

As well as commercial sources of tobacco products, there are social sources where individuals can obtain cigarettes from relatives or friends (*24*). One study

Figure 1 Implementation of tobacco sales to adolescents ban policy in GCC countries, 2010–2018

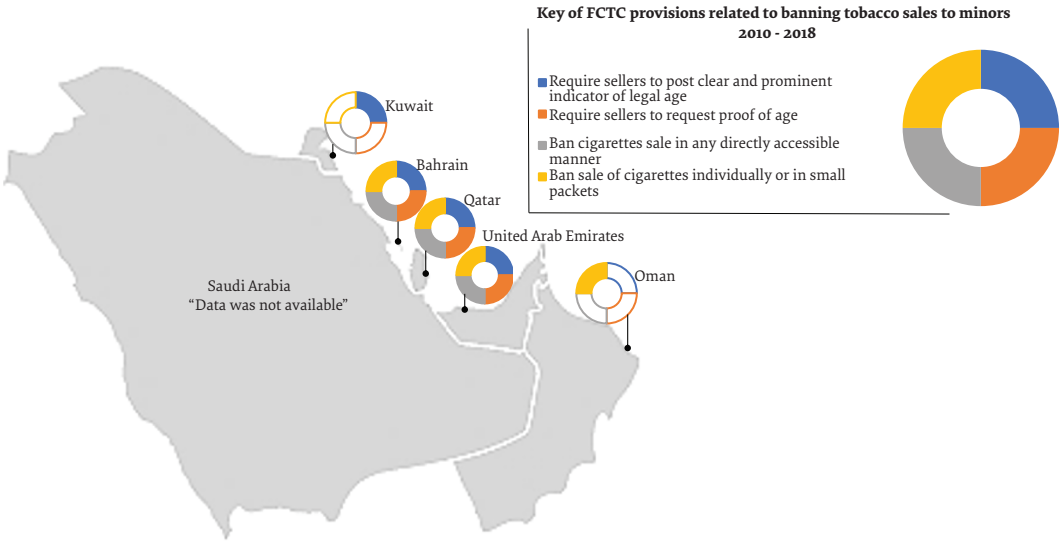

Table 1 Participants in the Global Youth Tobacco Survey, GCC countries, 2010–2018

Country	Year	No. of participants	Response rate (%)
Bahrain	2015	3641	76.9
Kuwait	2016	2477	87.7
Oman	2016	2208	91.1
Qatar	2018	2071	89.0
United Arab Emirates	2013	4259	93.2

indicated that adolescents' tobacco consumption increased when they asked older friends or relatives to buy them cigarettes or when they borrowed or stole cigarettes from others (*25*). Waterpipe use could be classified as a non-commercial source for adolescents in GCC countries because it is prevalent at social gatherings (*26*). This practice normalizes the sharing of waterpipes among family and friends (*26*), which may increase the risk of sharing among adolescents (*27*). Therefore, collective efforts in engaging the community, including adolescents, are required to prevent access from commercial and non-commercial tobacco sources. Community engagement could be achieved by providing a hotline for the public to report retailers selling tobacco products to adolescents, which could strengthen enforcement and increase adherence to banning tobacco sales (*28*).

GCC countries are collective societies where people share similar social values, including strong peer and family bonds. Policy-makers should use these social characteristics to enhance awareness about banning adolescents from purchasing and using tobacco products (*29*). Collectivist societies can be engaged in cooperative tobacco control activities and to report any violations. Policy implementation is most effective when individuals and families are engaged to optimize its benefits (*30*).

Table 2 Sociodemographic characteristics of survey participants, GCC countries, 2010–2018

Ever users				Bahrain		Kuwait		Oman		Qatar		United Arab Emirates	
Sex	Male	N	P value	2411.47	0.77	5151.25	0.95	1589.72	0.78	903.18	0.68	5296.47	0.98
		%		75.0		77.2		80.2		74.1		77.0	
	Female	N		804.86		1524.63		393.04		315.73		1583.96	
		%		25.0		22.80		19.8		25.9		23.0	
Age (yrs)	13	N	P value	576.83	0.27	1051.56	0.56	248.85	0.64	329.97	0.04	1184.94	0.93
		%		17.9		15.7		12.6		27.1		17.2	
	14	N		1272.33		2037.29		649.99		412.84		2188.54	
		%		39.6		30.4		32.8		33.9		31.8	
	15	N		1367.18		3620.15		1083.93		476.11		3506.94	
		%		42.5		54.0		54.7		39.1		51.0	
Refused purchase	No	N	P value	1888.03	0.23	5167.75	0.001	1167.77	0.65	829.96	0.22	3340.16	<0.001
		%		58.7		77.0		58.9		68.1		48.5	
	Yes	N		1328.31		1541.25		814.99		388.95		3540.26	
		%		41.3		23.0		41.1		31.9		51.5	
Current users				**Bahrain**		**Kuwait**		**Oman**		**Qatar**		**United Arab Emirates**	
Sex	Male	N	P value	1592.42	0.88	4719.09	0.37	525.39	0.17	568.04	0.10	3756.70	0.89
		%		80.7		84.7		67.6		74.2		82.1	
	Female	N		379.75		855.34		252.21		197.29		818.28	
		%		19.3		15.3		32.4		25.8		17.9	
Age (yrs)	13	N	P value	244.69	0.29	933.60	0.95	85.42	0.16	172.19	0.17	755.53	0.79
		%		12.4		16.6		11.0		22.5		16.3	
	14	N		734.00		1581.61		121.86		266.71		1244.67	
		%		37.2		28.2		15.7		34.8		26.9	
	15	N		993.48		3092.34		570.31		326.43		2635.07	
		%		50.4		55.1		73.3		42.7		56.8	
Refused purchase	No	N	P value	1888.03	0.23	5167.75	0.001	1167.77	0.65	829.96	0.22	3340.16	0.001
		%		58.7		77.0		58.9		68.1		48.5	
	Yes	N		1328.31		1541.25		814.99		388.95		3540.26	
		%		41.3		33.0		41.1		31.9		51.5	

Non-integer numbers in the table present the weighted frequencies as the analysis performed was weighted to account for the complex sampling used in the Global Youth Tobacco Survey.

Table 3 Association between refusal to sell tobacco products because of age and FCTC provisions related to banning sales to adolescents (*n*= 33 765)

FCTC provision		Require sellers to post clear and prominent indicator of legal age		Require sellers to request proof of age		Ban tobacco sale in any directly accessible manner		Ban sale of cigarettes individually or in small packets	
		(Reference = provision was not implemented)							
		AOR	CI	AOR	CI	AOR	CI	AOR	CI
Refuse to sell tobacco products (Reference= No, not refused)	Ever users	0.84	0.45–1.57	2.27	1.73–2.98	2.27	1.73–2.98	2.76	1.91–3.99
	Current users	0.89	0.37–2.16	2.52	1.86–3.42	2.52	1.86–3.42	2.73	1.85–4.02

Non-integer numbers in the table present the weighted frequencies as the analysis performed was weighted to account for the complex sampling used in the Global Youth Tobacco Survey. Model was adjusted for age and sex. AOR = adjusted odds ratio; CI = confidence interval; FCTC = Framework Convention on Tobacco Control.

Celebrities such as actors, social media influencers and religious leaders could also play an important role in influencing behaviour by promoting antitobacco messages (*31*). Tobacco control interventions, including regulations, penalties and awareness campaigns, should target tobacco users who assist children and adolescents to access tobacco products.

Previous studies have indicated a high number of attempts to purchase tobacco products by adolescents in GCC countries (*18*). Further investigation in this study showed that requesting proof of age during attempted tobacco purchase was associated with refusal to sell cigarettes to adolescents. This highlights the importance of requesting proof of age during tobacco purchasing. Active enforcement of requesting proof of age when purchasing tobacco products has been shown to reduce attempts by adolescents to buy tobacco from commercial stores (*32*). These findings suggest that banning tobacco sales to adolescents should be extended to include popular and emerging tobacco products such as waterpipes and electronic nicotine delivery systems (ENDS) (*27*). Adolescents can easily access waterpipes and ENDS from several sources, including cafes, tobacco stores and online stores (*26*, *33*), which usually lack proof of age verification. Insufficient control of access to popular and emerging tobacco products may weaken the effectiveness of tobacco control policies; in particular, banning tobacco sales to adolescents and leading them to switch to more accessible tobacco products.

This study indicated that banning sale of accessible tobacco products, such as not having them on open shelves and not selling cigarettes individually or in small packets, was associated with refusal to sell cigarettes to adolescents. Enforcing these measures has been shown to decrease adolescents' access to tobacco products and influence impulse purchases (*34*). It was found that banning self-service for tobacco products reduced illegal selling and shoplifting among adolescents (*35*). However, merchants may not comply with tobacco control regulations due to fear of profit loss (*35*). Therefore, tobacco control programmes in GCC countries should actively enforce measures to ban the sale of tobacco products to adolescents and educate merchants about the benefits of complying with these measures.

There were several limitations to this study. First, it relied on the national tobacco control policies reported in the FCTC biannual survey (*17*). There may be tobacco control interventions such as community and school-based programmes that were implemented at the local level but were not considered in our analysis. Also, the lack of data about the geographical distribution and proximity of tobacco outlets and stores to schools limited our ability to account for these confounding factors. Thus, more information on the local-level characteristics and activities is needed. Second, the study outcome focused on access to tobacco products from commercial sources such as kiosks, shops and stores. This may have underestimated social sources and access to other common tobacco products such as waterpipes and ENDS. The inconsistency across the GYTSs in the 5 GCC countries limited our ability to include access to other tobacco products. Finally, GYTS is a school-based cross-sectional survey that may be prone to social desirability bias, as students may inaccurately report use and access to tobacco products.

Conclusions

FCTC provisions related to banning the sale of tobacco to adolescents in GCC countries could help control access to tobacco. These are promising provisions to protect adolescents from accessing at least commercial sources of tobacco products. Banning tobacco sales to adolescents would help reduce experimentation with and initiation of smoking at the national level. It could send an implied message to the community about the danger of tobacco use and the need to comply with the measures to ensure that children and adolescents have no access to tobacco products. Other tobacco control efforts, such as awareness programmes and youth engagement, should include noncommercial sources of tobacco products.

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Interdiction de la vente de produits du tabac aux adolescents dans les pays membres du Conseil de coopération du Golfe

Résumé

Contexte : Le tabagisme représente un problème de santé publique dans les pays membres du Conseil de coopération du Golfe (CCG). Bien que la restriction de l'accès au tabac permette de réduire la consommation parmi les adolescents, les connaissances concernant la mise en œuvre d'une politique visant à interdire la vente de ce type de produits dans la sous-région sont limitées.

Objectif : Évaluer l'application de la politique d'interdiction de vente de produits du tabac aux adolescents dans les pays membres du CCG, conformément à la Convention-cadre de l'OMS pour la lutte antitabac.

Méthodes : Nous avons utilisé les données autodéclarées provenant de l'étude transversale réalisée en milieu scolaire et recueillies dans le cadre de l'Enquête mondiale sur le tabagisme chez les jeunes menée entre 2013 et 2018 auprès d'élèves âgés de 13 à 15 ans dans cinq des six pays membres du CCG. Nous avons analysé les modalités de mise en œuvre des quatre dispositions de la Convention-cadre de l'OMS pour la lutte antitabac portant sur l'interdiction de vente de ces produits aux adolescents.

Résultats : L'application des dispositions clés relatives à l'interdiction de vente de produits du tabac aux adolescents variait d'un pays à l'autre. Bahreïn, les Émirats arabes unis et le Qatar ont appliqué les quatre dispositions, tandis que le Koweït et Oman n'en ont appliqué qu'une seule. Plus de 50 % des adolescents qui ont essayé d'acheter des cigarettes n'ont pas connu de refus.

Conclusion : Les pays membres du CCG doivent mettre en œuvre et faire appliquer uniformément la politique d'interdiction de vente de produits du tabac aux adolescents dans le cadre de leurs programmes de lutte antitabac. L'objectif de ces programmes serait d'impliquer et d'informer les commerçants et les adolescents sur les conséquences du tabagisme pour la santé et sur la nécessité de veiller à l'application des règles.

حظر بيع منتجات التبغ للمراهقين في بلدان مجلس التعاون لدول الخليج

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الخلاصة

الخلفية: يمثل تعاطي التبغ تحديًا للصحة العامة في بلدان مجلس التعاون لدول الخليج. وعلى الرغم من أن تقييد الحصول على التبغ يمكن أن يحد من استهلاك المراهقين له، توجد معرفة محدودة بكيفية تنفيذ سياسة حظر بيع التبغ في هذا الجزء من الإقليم.

الهدف: هدفت هذه الدراسة الى تقييم فرض حظر على بيع منتجات التبغ للمراهقين في بلدان مجلس التعاون لدول الخليج، وفقًا لما تنص عليه اتفاقية منظمة الصحة العالمية الإطارية بشأن مكافحة التبغ.

طرق البحث: استخدمنا بيانات مقطعية من المسح العالمي للتبغ بين الشباب (2013– 2018) للطلاب الذين تتراوح أعمارهم بين 13 و15 عامًا من خمسة من البلدان الستة الأعضاء في مجلس التعاون لدول الخليج، وهي بيانات جُمعت من طلاب المدارس بالاستناد إلى إجاباتهم. وقد حلّلنا نمط تنفيذ 4 من أحكام "اتفاقية منظمة الصحة العالمية الإطارية بشأن مكافحة التبغ" التي تتناول حظر بيع منتجات التبغ للمراهقين.

النتائج: تباينُ تنفيذ أهم الأحكام المتعلقة بحظر بيع منتجات التبغ للمراهقين من بلد إلى آخر. فالإمارات العربية المتحدة والبحرين وقطر نفذت الأحكام الأربعة، في حين لم تنفذ عُمان والكويت إلا حكمًا واحدًا. وأكثر من 50٪ من المراهقين الذين حاولوا شراء السجائر لم يُرفَض بيعها لهم.

الاستنتاجات: ينبغي لبلدان مجلس التعاون لدول الخليج أن تنفِّذ سياسة حظر بيع منتجات التبغ للمراهقين، وأن تفرضها باستمرار في إطار برامجها لمكافحة تعاطي التبغ. وينبغي أن تسعى تلك البرامج أيضًا إلى إشراك التجار والمراهقين وتثقيفهم بشأن الآثار الصحية لتعاطي التبغ والحاجة إلى إنفاذ السياسة.

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