

# Sources of health information used by Qatari adolescents

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## Abstract

**Background:** In Qatar, health media campaigns and applications (apps) have not been particularly successful among adolescents. Arab culture suggests personal communication as a promising alternative.

**Aims:** This study aimed to assess the importance of personal communication for health information among Qatari adolescents compared with other sources.

**Methods:** A secondary analysis of a representative sample of 1117 Qatari adolescents was done in 2017 of their sources of health information. Data were analysed according to age group and sex.

**Results:** Personal communication was the most important source of health information (particularly parents and friends), together with a few selected Internet platforms for both sexes and age groups. Significantly more females used parents and Instagram as a source of health information than males ( $P \leq 0.01$ ). Males used traditional media channels, online forums and Facebook significantly more often than females (all  $P < 0.001$ ). Siblings, doctors/nurses, Twitter and Wikipedia were significantly more important for older adolescents ( $P < 0.05$ ). Younger respondents relied on YouTube and health classes significantly more than older adolescents ( $P < 0.05$ ).

**Conclusions:** Providers of health information for adolescents should take advantage of personal communication and pay attention to which Internet channels are used. Parents and friends are particularly important sources of health information.

Keywords: adolescents, health, health information, media of communication, Qatar

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## Introduction

Qatar is a country with health problems among its adolescents (1–3). The authorities have tried to convince them to become more health-conscious through campaigns and an online application (app) (3,4). So far, not a single recent campaign has reached most Qatari adolescents (3) and the app has only been “ever downloaded or used” by 5% of Qatari adolescents (3).

Scattered evidence about alternative sources of health information has already hinted at family and friends as the most used channels in Qatar, followed by the Internet (5,6). In the Gulf region, personal communication appears important as well (7–9), as also in South America (10,11) and Europe, North America, Australia and New Zealand (12), above all among adolescents (4,13–22). Arab culture should even strengthen the role of personal communication since it is more relationship-based (23) where personal connections play an important role (24) and social behaviour tends to be more ‘other-directed,’ i.e., more determined by one’s family, elders and peers (25).

In particular, adolescents’ friends should be a promising personal source for health information. Research has found that adolescents from 12 years upwards become increasingly less dependent on their parents (26). Instead, they are receptive to approval or disapproval from peers outside the family; this seems

even more the case among females (27). Thus, personal sources seem to be particularly promising for reaching young people with health information, specifically in Arab cultures. Among these sources, the importance of adolescents’ friends has been emphasized (26).

The objectives of this study were to examine how popular personal contacts are for general health information among Qatari teenagers, specifically the role of friends, when compared to other sources of information. Research on sex and peer orientation (27) suggests two hypotheses: H1) female adolescents consult their friends more often than males for health information; and H2) the older adolescents are, the more often they consult their friends for health information (26).

## Methods

This study is a secondary analysis of a large representative survey of Qatari adolescents aged 13–20 years in order to gauge their health information behaviour (3). Informed consent was obtained beforehand from both the adolescents and their parents. The survey was commissioned by Northwestern University in Qatar, administered by the Social and Economic Survey Research Institute, Qatar University, and conducted in Arabic on laptop

computers at schools, from 22 April to 17 May 2017. In total, 1117 Qatari nationals participated (response rate: 72%).

The sources for health information that Qatar's adolescents turn to was addressed by the question: "People get information about health from many different sources. For each of the following sources please indicate whether you have used them *at all* to get information about health topics." Possible answers were "yes", "no", "refused" and "not applicable" (3). The 23 sources presented to respondents were compiled into the following categories:

- *Personal sources*: guardians (parents in most cases), siblings, friends, doctors/nurses;
- *Websites*: YouTube, Wikipedia, *SahtakAwalan* (Qatari health website), a medical website, online forums about health information, newspaper articles (online version), magazine articles (online version);
- *Social media*: Facebook, Snapchat, Twitter, Instagram;
- *Traditional media*: television (TV) news, TV shows (talk shows, reality shows, medical or other dramas), newspaper articles (print version), magazine articles (print version), radio, books;
- *Other*: leaflets/pamphlets (from a hospital, clinic or medical practice), health classes in school.

To test H1 and H2, the responses of females and males, and younger and older adolescents were compared. In the survey, sex was addressed by the question "What is your gender?" with responses "I am a female" and "I am a male" (50% of the respondents each). The age of the respondents was gauged by "What is your age in years?" (3). The median age divided the respondents into a younger cohort (13–15 years, 45% of the respondents) and an older cohort (16–20 years, 55%).

The chi-square or Fisher exact test (one-sided) was used to assess the statistical significance of differences between these groups. A  $P$ -value  $\leq 0.05$  was considered statistically significant.

## Results

For more than three quarters of all respondents and for their four subgroups separately, personal sources were the most popular source for health information, in this order: parents, friends, siblings and doctors/nurses. One website (YouTube) and two social-media platforms (Instagram and Snapchat) were equally important. Fewer Qatari adolescents mentioned other social-media platforms and websites, or more traditional sources such as medical leaflets/pamphlets, TV, books and health classes. Radio, printed newspapers and magazines were consulted by about 30% of respondents (Table 1).

H1 (females consult friends more often than males) was not confirmed. On the contrary, parents were a more

usual source of health information for females than for males ( $P < 0.001$ ), and also Instagram ( $P = 0.01$ ). Males, in contrast, used traditional media channels (TV news, print media and radio) significantly more often than females, as well as online forums, Facebook and health classes (all  $P < 0.05$ ).

H2 (the older adolescent are, the more friends-oriented they become) was also not confirmed. Siblings ( $P < 0.001$ ) and doctors/nurses ( $P = 0.04$ ) were significantly more important for older adolescents, as were Twitter ( $P = 0.02$ ) and Wikipedia ( $P = 0.05$ ). Younger respondents relied on YouTube ( $P = 0.05$ ) and health classes ( $P = 0.03$ ) significantly more than older adolescents.

## Discussion

This analysis supports the assumption that personal sources of health information are the most important among Qatari adolescents. In Qatar, only two social-media platforms (Instagram and Snapchat) and one website (YouTube) were close in usage to personal sources. This result was valid equally for females and males, and younger and older adolescents.

Among the personal sources, and as predicted by previous research (26), friends are extremely important, surpassed only slightly by parents. Females and males, and younger and older adolescents rely equally on their friends as sources of health information. Therefore, assumptions that females and older adolescents should be more friends-oriented (H1 and H2) are not supported. Instead, females depend slightly more than males on their parents for health information in general, which would contradict previous evidence (27). In contrast to the concept of moral development (26), the dominant role of the family in Qatari culture, especially that of parents, would appear to prevail even among females and older adolescents.

As a promising conclusion, health campaigns for adolescents in Arab countries should take advantage of personal communication with parents and friends to disseminate health information, supported by careful use of specific Internet platforms.

## Limitations

Friends as sources of health information might possibly be more popular than measured in this secondary analysis because they could also be the unmentioned sources of health information on social media. Also, since this study is about health information in general, it could well be that adolescents use personal sources even more extensively the more serious the health issues are (9).

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**Competing interests:** None declared.

**Table 1 Communication channel used to get information about health topics**

Channel	All respondents		Females		Males		13–15-year-olds		16–20-year-olds		P-value
	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)		
Guardians	87 (1014)	90 (510)	83 (501)	88 (591)	< 0.001**	0.08					
Friends	85 (1004)	86 (512)	84 (487)	84 (532)	0.31	0.33					
YouTube	80 (1010)	80 (512)	80 (495)	78 (536)	0.48	0.05*					
Siblings	79 (986)	79 (500)	78 (484)	82 (532)	0.31	< 0.001**					
Instagram	78 (1011)	82 (509)	75 (499)	79 (526)	0.01**	0.30					
Doctors/nurses	77 (981)	79 (500)	75 (479)	79 (516)	0.09	0.04*					
Snapchat	76 (1013)	75 (505)	77 (505)	76 (529)	0.25	0.28					
Medical leaflets	66 (964)	66 (485)	67 (476)	66 (512)	0.39	0.53					
Television shows	66 (962)	65 (485)	67 (474)	66 (507)	0.36	0.48					
Medical websites	64 (941)	66 (468)	62 (471)	62 (506)	0.11	0.12					
Books	62 (972)	63 (488)	61 (481)	62 (519)	0.33	0.29					
Television news	62 (959)	57 (469)	67 (480)	63 (501)	< 0.001**	0.20					
Twitter	57 (975)	60 (489)	55 (484)	61 (518)	0.08	0.02*					
Health classes	57 (952)	54 (470)	60 (481)	54 (501)	0.03*	0.03*					
Wikipedia	57 (960)	59 (475)	55 (483)	59 (512)	0.14	0.05*					
SahitakAwalan	52 (941)	50 (468)	53 (470)	53 (502)	0.26	0.20					
Newspapers (online)	47 (909)	46 (461)	49 (445)	47 (485)	0.22	0.40					
Magazines (online)	46 (935)	47 (469)	44 (462)	44 (496)	0.20	0.21					
Online forums	43 (944)	39 (479)	48 (463)	42 (500)	< 0.001**	0.36					
Magazines (print)	37 (904)	31 (455)	42 (447)	34 (487)	< 0.001**	0.18					
Newspapers (print)	36 (909)	31 (460)	41 (447)	38 (484)	< 0.001**	0.06					
Radio	34 (903)	24 (446)	44 (454)	35 (486)	< 0.001**	0.22					
Facebook	26 (862)	16 (415)	35 (444)	26 (470)	< 0.001**	0.26					

\*Statistically significant difference at  $P < 0.05$  (chi-squared, Fisher exact test, one-sided). \*\*Statistically significant difference at  $P < 0.01$  (chi-squared, Fisher exact test, one-sided).

<sup>a</sup>Qatari health website.

Values for n differ because of missing data (refused/not applicable responses).

## Sources d'information sanitaire utilisées par les adolescents qatariens

### Résumé

**Contexte :** Au Qatar, les campagnes médiatiques et les applications dans le domaine de la santé n'ont pas eu beaucoup de succès auprès des adolescents. Dans la culture arabe, la communication personnelle semble être une alternative prometteuse.

**Objectifs :** La présente étude visait à évaluer l'importance de la communication personnelle pour la diffusion d'informations sanitaires auprès des adolescents qatariens, en comparaison avec d'autres sources.

**Méthodes :** Une analyse secondaire des sources d'information sanitaire a été réalisée dans un échantillon représentatif de 1117 adolescents qatariens en 2017. Les données ont été analysées en fonction du groupe d'âge et du sexe.

**Résultats :** La communication personnelle était la principale source d'information sanitaire (notamment avec les parents et les amis), ainsi qu'un nombre limité de plateformes Internet pour chaque sexe et groupe d'âge. Les filles étaient nettement plus nombreuses que les garçons à recueillir des informations sanitaires auprès de leurs parents et sur Instagram ( $p \leq 0,01$ ). Les garçons utilisaient les médias traditionnels, les forums en ligne et Facebook beaucoup plus fréquemment que les filles (en tout,  $p < 0,001$ ). Les frères et sœurs, les médecins et le personnel infirmier, ainsi que Twitter et Wikipédia, constituaient des sources significativement plus importantes pour les adolescents plus âgés ( $p < 0,05$ ). Les répondants plus jeunes s'appuyaient sur YouTube et les cours de santé de manière significativement plus importante que les adolescents plus âgés ( $p < 0,05$ ).

**Conclusions :** Les fournisseurs d'informations sanitaires destinées aux adolescents devraient tirer profit de la communication personnelle et faire attention aux canaux Internet qui sont utilisés. Les parents et les amis sont des sources particulièrement importantes d'informations sanitaires.

### مصادر المعلومات الصحية التي يستخدمها المراهقون القطريون

كلاوس شونباخ

#### الخلاصة

الخلفية: لم تُلاقِ الحملات الإعلامية والتطبيقات الصحية نجاحاً بين المراهقين في قطر على وجه الخصوص. ووفقاً لمنظور الثقافة العربية، فقد يُعتبر التواصل الشخصي بديلاً واعدداً.

الأهداف: هدفت هذه الدراسة إلى تقييم أهمية التواصل الشخصي كمصدرٍ لحصول المراهقين القطريين على معلومات صحية مقارنةً بمصادر أخرى.

طرق البحث: في عام 2017، أُجري تحليل ثانوي شمل عينةً تمثيليةً تتألف من 1117 مراهقاً قطرياً حول المصادر التي يحصلون منها على معلومات صحية. وحُللت البيانات حسب الفئة العمرية ونوع الجنس.

النتائج: كان التواصل الشخصي أهم مصدر للمعلومات الصحية (خاصةً من الأبوبين والأصدقاء)، بالإضافة إلى قليل من منصات الإنترنت المختارة لكلا الجنسين والفئة العمرية. وتبين أن الإناث يلجأن إلى الأبوبين أو الإنستجرام كمصدر للمعلومات الصحية بنسبة أعلى بكثير من الذكور ( $P < 0.01$ ). أما الذكور فكانوا يستخدمون الطرق التقليدية أكثر مثل القنوات الإعلامية، والمتنديات الإلكترونية والفيسبوك بنسبة أعلى بكثير من الإناث ( $P < 0.001$ ). وبالنسبة للمراهقين الأكبر سناً، كان الإخوة والأطباء/المرضون (المرضات)، وتويتر، وويكيبيديا مصادر مهمة للغاية ( $P < 0.05$ ). أما المستجيبون الأصغر سناً، فكانوا يعتمدون بصورة أكبر على يوتيوب والفصول الصحية مقارنةً بالمراهقين الأكبر سناً ( $P < 0.05$ ).

الاستنتاجات: يجب أن يستفيد مقدمو المعلومات الصحية للمراهقين من التواصل الشخصي، مع الانتباه إلى نوعية قنوات الإنترنت المستخدمة. ويُعتبر الآباء والأصدقاء مصادر مهمة للمعلومات الصحية على وجه الخصوص.

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