

Original Article

Perceptions of Patients Attending Primary Care in Kuwait Regarding Upper Respiratory Tract Infections

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ABSTRACT

Objective: To determine the perceptions of patients reporting to primary health care centers about the natural history and treatment of Upper Respiratory Tract Infections (URTIs).

Subjects and Methods: A cross-sectional sampling survey was conducted in four primary health centers among patients who attended for URTIs during November and December 2000. A questionnaire including personal information and perceptions of patients regarding the natural history and management of URTIs was completed by 979 adult patients as well as by parents or grandparents of sick children (guardians). A child was defined as any person 16 years of age or younger. A respondent was any adult person who filled out the questionnaire.

Results: A total of 436 adult patients and 543 guardians

were included in the study (47% males and 53% females). Of all respondents, 54% had a university degree, and 76% were <40 years. The majority of the respondents (54%) thought that URTIs would not resolve without medication. Most of the respondents (80%) thought that multiple medications induced faster recovery, and 62% disagreed about not having medications for URTIs. Regarding treatment for URTIs, only 37% wished to have oral antibiotics, while the majority (58%) wished to have "injections". Despite the fact that most of the respondents were not worried about URTIs, 64% were coming for reassurance and 68% to exclude complications.

Conclusion: There is a need to educate and modify the help-seeking behavior of patients regarding the management of URTIs, especially regarding the use of multiple medications and injections.

KEYWORDS: antibiotics, health education, injections, middle east

INTRODUCTION

Upper Respiratory Tract Infections (URTIs) are minor conditions accounting for the most common causes for which general practitioners are consulted^[1]. Viruses are the most common causative organisms, with rhinovirus and adenovirus being the most common in of febrile respiratory illness in children^[2]. The usual duration of the disease is 5-7 days but sometimes it may take up to 14 days to resolve^[2]. In Kuwait, it is the most common cause for consultation in primary health centers, totaling up to 25% of the family practitioner's workload. Similarly, in the United Kingdom, URTI is the most common cause for consultation in family practice^[3]. Many doctors feel obliged to prescribe multiple medications and injections assuming that patients desire such treatments^[5-7]. The behavior of doctors may reinforce the patients' idea that they must obtain medications for URTIs^[8]. In studies done in Hong Kong, the majority of patients attending family practice clinics thought that a URTI would not resolve on its own, especially in children^[9-11].

The objective of this study was to determine the perceptions of patients reporting to the primary health care centers in Kuwait about the natural history and the treatment of URTIs.

SUBJECTS AND METHODS

A questionnaire was developed with the help of a group of senior family practitioners. The questionnaire was adapted from one, which had been used in Hong Kong family practice centers^[9]. Questions were translated to Arabic and refinement of the wording was made. Some questions were omitted completely from the questionnaire because they did not fit the local culture. Our questionnaire consisted of 14 questions covering the natural history of the disease, attitudes, wishes of the patients and reasons of consultation for URTIs. A team of five doctors was assigned to the survey in four primary health clinics. The clinics were chosen to represent various types of practices. One of the clinics was affiliated to an academic center and it was the only family health center in the

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Table 1
Socio demographic characteristics of the respondents (N=979)

Variables	Adult patients n (%)	Guardians n (%)
Age		
18-29	175 (40)	199 (37)
30-39	159 (37)	212 (39)
> 40	102 (23)	130 (24)
No answer	-	2 (0.3)
Gender		
Male	214 (49)	242 (45)
Female	221 (51)	298 (55)
No answer	1 (0.2)	3 (0.5)
Education		
Middle school	60 (14)	61 (11)
High school	129 (30)	188 (35)
University	237 (54)	293 (54)
No answer	10 (2)	1 (0.2)
Occupation		
Working	229 (53)	301 (55)
Not working	201 (46)	241 (44)
No answer	6 (1.3)	1 (0.2)
Total	436 (45)	543 (55)

None of the differences were statistically significant

corresponding health district, the other three were primary health care centers offering general care, one of them serving mainly non-Kuwaiti population.

The questionnaire was distributed in the four clinics (250 questionnaires in each). After a doctor had seen a patient and decided that the consultation was for URTIs, the adult patient or the guardian of a sick child was asked to fill in the questionnaire and return it before leaving. Data collection lasted 6 weeks during November and December 2000. Exclusion criteria were anyone who was illiterate and any child who was not accompanied by a guardian. The guardian was defined as a parent or grandparent of the child, not a maid or a driver. A respondent was defined as any adult who had filled in the questionnaire.

URTIs were defined according to the International Classification of health problems in Primary Care as any infection in the respiratory tract system above the trachea with symptoms of running nose, nasal congestion, sore throat or cough for less than two weeks, with or without fever or malaise. Data were analyzed using the Statistics Package for Social Sciences (SPSS). The Chi-square was used to test differences in dichotomous variables. The Z-normal test was used to derive the p-value when a variable had more than two categories.

RESULTS

In this survey, 979 questionnaires were completed. Of all respondents, 47% were males and 53% females. The adult patients were 436, the

Table 2
Knowledge and perceptions about the natural history of URTI

Knowledge and Perceptions	Adult patients n (%)	Guardians n (%)	P-value
Do you think URTI resolve spontaneously in adults?			
Yes	255 (59)	191 (35)	<0.05
No	179 (41)	352 (65)	
No answer	2 (0.4)	-	
Do you think URTI resolve spontaneously in children?			
Yes	181 (42)	86 (16)	<0.05
No	252 (58)	451 (83)	
No answer	3 (0.6)	6 (1)	
Do you think multiple medications are necessary for fast recovery?			
Yes	343 (79)	435 (80)	NS
No	92 (21)	108 (20)	
No answer	1 (0.2)	-	
Do you think injections are necessary for fast recovery?			
Yes	274 (63)	328 (60)	NS
No	156 (36)	209 (39)	
No answer	6 (1.3)	6 (1.1)	
How many days do you think are necessary for recovery?			
1-2 days	33 (8)	28 (5)	NS
3-4 days	234 (53)	93 (17)	
5-6 days	164 (38)	218 (40)	NS
No answer	5 (1)	204 (38)	
Do you wish to have medicine for fast recovery from URTI?			
Yes	207 (48)	288 (53)	NS
No	215 (49)	251 (46)	
No answer	14 (3)	4 (0.7)	
Do you wish to have antibiotics for URTI?			
Yes	58 (36)	204 (38)	NS
No	264 (61)	336 (62)	
No answer	14 (3.3)	3 (0.5)	
Do you wish to have injections for URTI? for URTI?			
Yes	250 (57)	318 (59)	NS
No	172 (39)	222 (41)	
No answer	14 (3.3)	3 (0.5)	
Total (N=979)	436 (45)	543 (55)	

guardians were 543. Table 1 shows the socio-demographic data. For the statement if URTI resolves spontaneously in adults, 58.5% of adult patients agreed, while 35% of guardians agreed about the same in children (Table 2). Adult patients were significantly more likely to believe that URTIs can resolve spontaneously in adults and children, compared to guardians. Only 35.7% of adult patients and 37% of guardians accepted doctors' advice not to have medications after consultation (Table 3). Regarding respondents' expectations, 57% of adult patients and 59% of guardians wished to have injections, and 36% of adult patients and 38% of guardians wished to have oral antibiotics

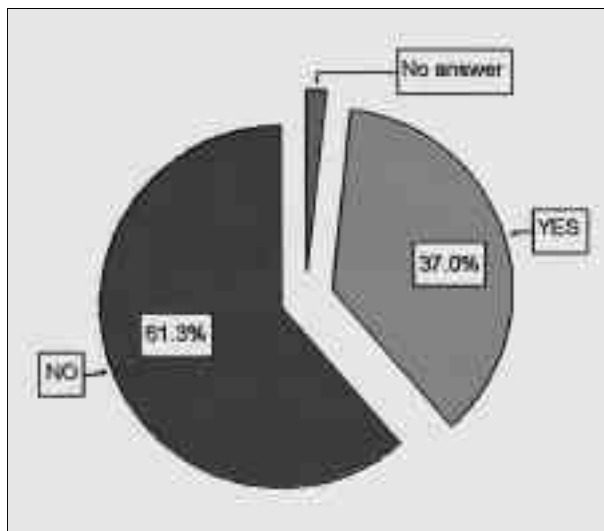


Fig. 1: Do you think antibiotics are essential in the treatment of Upper Respiratory Tract Infections - (n=979 respondents)

Table 3
Attitude about URTI

Attitude	Adult patients n (%)	Guardians n (%)
Are you worried about URTI?		
No	290 (67)	343 (63)
Slight	97 (22)	140 (26)
Very	46 (11)	59 (11)
No answer	3 (0.6)	1 (0.2)
Are you confident about self-care?		
Yes	330 (76)	415 (76)
No	89 (20)	116 (21)
No answer	17 (3.9)	12 (2.2)
Do you accept doctors advice that medication may not be needed?		
Yes	156 (36)	201 (37)
No	264 (61)	338 (63)
No answer	16 (3.7)	4 (0.7)
Total (N = 979)	436 (45)	543 (55)

None of the differences was statistically significant

(fig.1). There was no difference in the results between adult patients and guardians in reasons for consultation, 64% of all respondents consulted for reassurance, and 68% to exclude complications (Table 4)

DISCUSSION

A survey of about 1000 adults attending clinics for URTI for either themselves or their children showed a large tendency to consider those problems as self-limiting, more so in adults than children^[12]. Nevertheless, most participants believed they still need to consult a physician mostly for reassurance, to avoid complications^[13], or to shorten a disease, which lasted longer than expected. In a similar study in Hong Kong, most of

Table 4
Reasons for consultation in URTI

Reasons for consultation	Adult patients n (%)	Guardians n (%)
For reassurance	284 (65)	339 (62)
To exclude complications	286 (66)	377 (69)
URTl lasted longer than expected	227 (52)	283 (52)
To get a sick leave	127 (29)	148 (27)
Total (N = 979)	436	543

None of the differences were statistically significant

the adult patients also went for reassurance and to exclude complications. In that survey, nearly one third of the respondents (adult patients and guardians) went specifically to obtain antibiotics^[9]. Two other studies in England and USA showed that patients' expectations were mainly for antibiotic prescriptions^[14-15]. Few respondents admitted consulting to obtain a sick leave. This may be due to several reasons. Most respondents are not worried about URTIs and may not think such a disease is serious enough to abstain from work. Children do not need a medical certificate to miss classes. Some respondents may have also preferred to deny a reason they perceive to be socially unacceptable.

In apparent contradiction with the wide belief that URTIs are self-limiting, is the expectation of most respondents that a prescription should be part of the consultation, preferably with more than one drug. Another interesting finding is the relatively high belief in this group that injections are necessary for recovery, and their desire to obtain such injections. Procaine penicillin is the most common injection used for cases of URTIs, and it is responsible for many side effects like incorrect technical methods of injection leading to non-allergic reactions known as Hoigne's syndrome due to intra-arterial injection and vascular occlusion by large crystal salts leading to swelling and pain. Intravenous injections may lead to anxiety, panic disorders, hallucinations and delusions^[16-18]. In more severe cases, they may cause coma, convulsions and death^[18]. Other side effects include antibiotic resistance due to excessive use^[14]. Allergic reactions include anaphylactic shock and death. Oral therapy for URTIs is effective, easier to administer, safer, cheaper and its use reduces labour and equipment costs^[19].

Efforts should be directed to reduce the rate of antibiotic use generally, and penicillin injections specifically, for common URTIs. A consulting technique that makes expectations explicit, preserves relationships, and facilitates acceptable management techniques are important. Risk to individuals from unnecessary medications

especially antibiotics should be emphasized^[20]. An explicit clinical guideline of the management of URTIs is valid in community-based family practice^[21].

CONCLUSIONS

The fact that respondents insist on medications even when physicians do not think they are needed and their preference for injections should be a matter of concern for health policy makers and health educators. As long as physicians perceive these demands from patients, they will likely respond to them and go on prescribing injections or drugs, which may not be used, or used badly leading to unnecessary expenses, possible adverse effects and increased potential for the emergence of bacterial resistance. Health educators may want to focus on this misperception regarding drugs when addressing education messages through any medium to Kuwaiti patients. Physicians should be reassured that if they resist the demand of patients for medications, they will not be penalized if malpractice claims are brought against them.

In Kuwait, health care is free of charge for Kuwaiti patients. Non-Kuwaiti patients have to pay a fee for consultation irrespective of whether medications are prescribed or not. These rules may encourage the demand for medications even when they are not needed. Changing the rules so that a small fee is paid by all for prescriptions only and not for visits, may render patients more open to physicians' suggestions that drugs may not be needed for all diseases.

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