

Original article

Parent-based self-medication in Pakistani children: a qualitative cross-sectional survey

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Abstract

Background: A large percent of the population in developing countries is comprised of children drug utilization patterns in children is of great concern universally and has gained a lot of attention. **Objectives:** The aim of this study was to test the Pakistani parents' knowledge, attitudes and practice (KAP) towards self-medicating their children. **Methods:** A cross-sectional study was designed and the data collection was carried out in several government and private hospitals in Karachi, Pakistan. Non probability convenient random sampling method was employed to select the participants. **Results:** In our study, 45 (44.55%) parents were university graduates. The most frequent medicines used were Panadol (paracetamol) 84 (83%). The most common self treated symptom was cough & cold 73 (72.27%). In case of self-treatment failure most of the parents in the present study tend to consult general practitioners in private clinics 62 (61%), while 31 (31%) of them seek advice from child specialists in hospitals. Doctors were the first favourite source for 92 (91.0%) of parents. The most common reasons were the expensive consultation fees and long waiting time in the clinics. A large portion of parents disagreed that health care workers' attitudes were bad, or that information relayed to them was insufficient. Another important finding was 52 (51.4%) of parents were convinced that they can diagnose their child's illnesses by the symptoms. **Conclusions:** The study uncovered that parents' knowledge was lacking, and their parental self medication practice demonstrated to be unseemly. Based on the results of our study, we conclude that there is a critical need of appropriate interventions to tackle this issue.

Keywords: self-medication; children; parents' knowledge; drug utilization.

Introduction:

A large percent of the population in developing countries is comprised of children.¹ drug utilization patterns in children are of great concern universally and has gained a lot of attention. A number of studies have been done in this area in the advanced and developing countries. These studies have shown various problems ranging from misuse and abuse of prescribed drugs, to errors of medications.^{2,3} In children, mostly the drugs are used outside the health settings with or without prescription. Usually the families initially responded the illnesses in the children with self-medication.⁴ Fever has been the chief complaint of all paediatric consultations

in general practice.⁵ Literature indicated that parents still have a problem in resolving the fever in children. Some parents are of the opinion that fever is one of the diseases which can occur in their children, rather than to be a sign or symptom of the ailment.⁶ In a number of nations, the antipyretic drugs and other over-the-counter (OTC) medicines are frequently used by parents to treat their children.⁷ Use of (OTC) medicines by parents may be affected by their attitudes towards illnesses. Nevertheless, some previous studies demonstrate that parents' knowledge about fever is still incomplete. Mostly the parents are unclear about the use of medicines to manage the pain

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and fever associated with minor ailments in their children. The most common ailments of children are headache, fever, flu, diarrhoea and sore throat.⁸ Considering children's ailments, the responsibility will usually be on the children's parents.⁹ The aim of this study was to test the Pakistani parents' knowledge, attitudes and practice (KAP) towards self-medicating their children, to identify the most commonly used drugs and the reasons of parental self-medications in Karachi, Pakistan.

Materials and methods

A cross-sectional study was designed and the data collection was carried out in several governmental and private hospitals in Karachi, Pakistan. Non probability convenient random sampling method was employed to select the participants. The target population was included parents from different areas regardless of their age, occupation, social status and education. The total distributed sample size was

101 parents in the period from April to September 2014. A questionnaire was developed to assess the knowledge, attitude and pattern of practice of the parents to self-medicate their children. Parents were requested to complete the questionnaire on the spot. The questionnaire was divided into three parts: The first part was developed to achieve demographic characteristics such as age, occupation, gender, education and number of children. The second part was designed to investigate the parents' knowledge, and the pattern of self-medication practice. Questions were used to examine the type of medications given to treat the children, most frequent medicines used and the most favourite sources of health information. In the third part five point Likert scale was used to study the attitude and the reasons of parental self-medication.

Results

In our study, the majority of parents going through

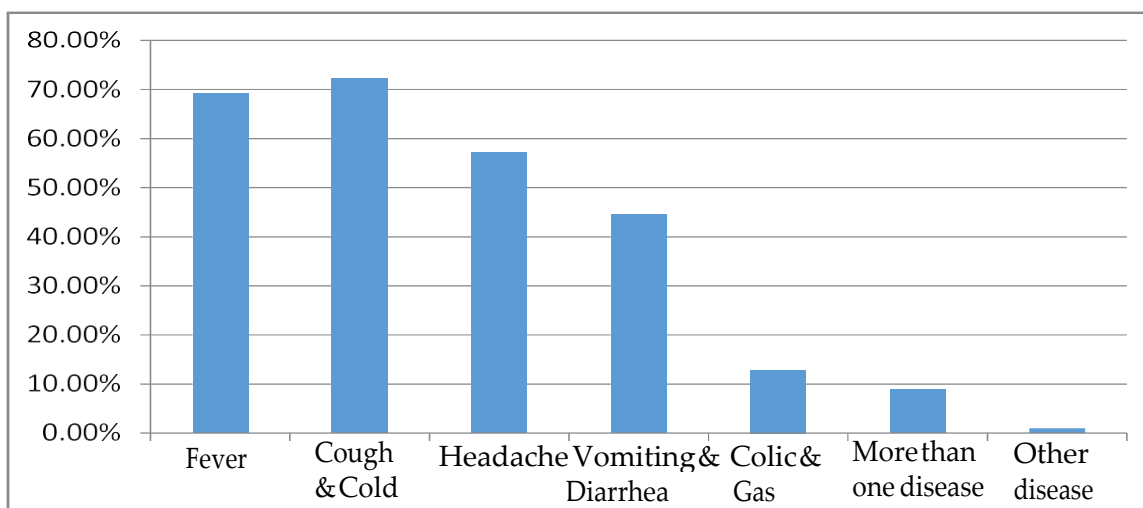


Figure 1: Most common disease for which self-medication was done

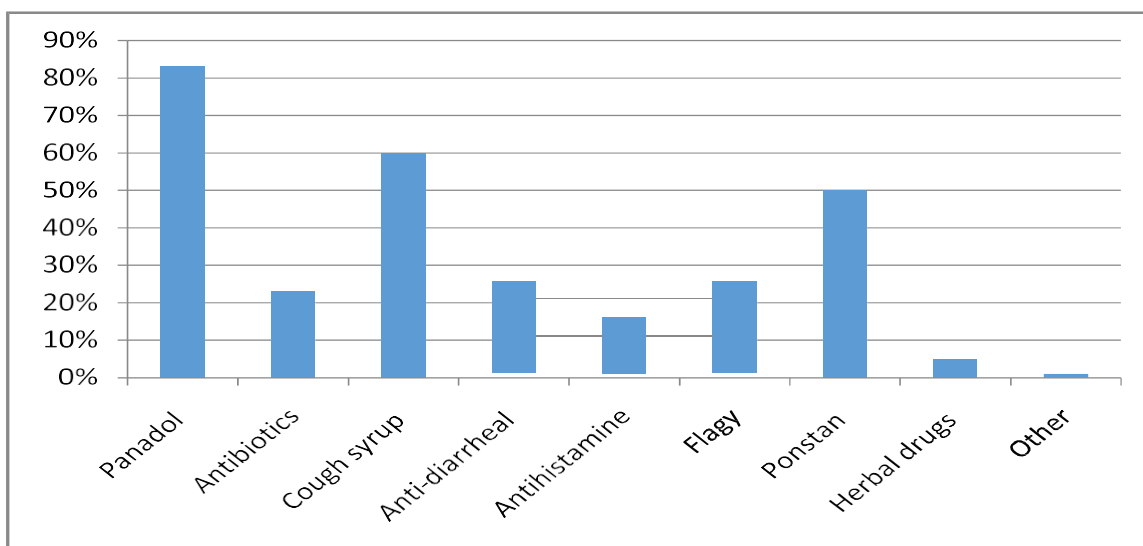


Figure 2: Most commonly used medicines by parents to self-medicate their children

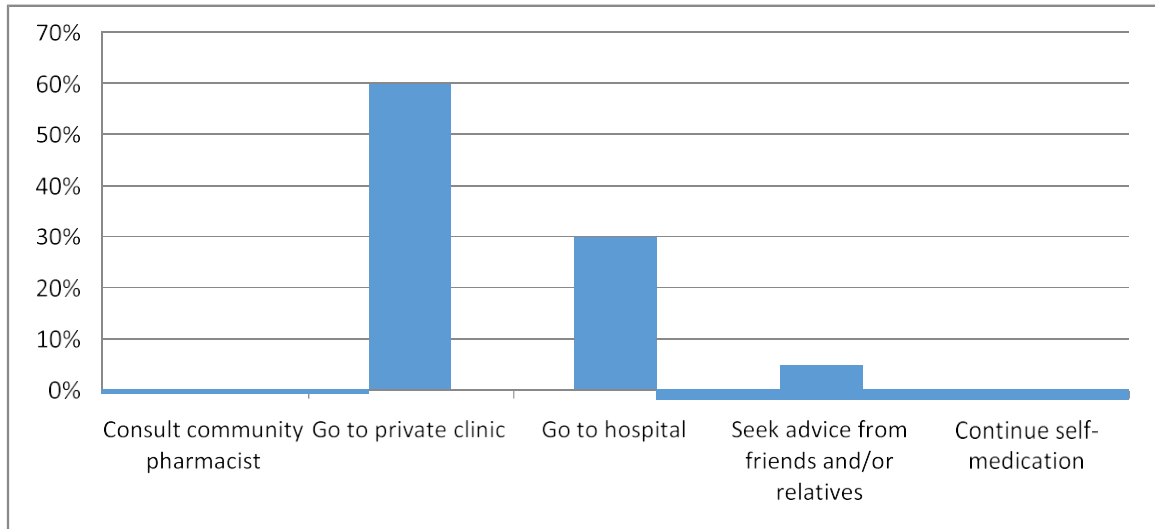


Figure 3: Actions taken by parents when self-medication fails to resolve the problem

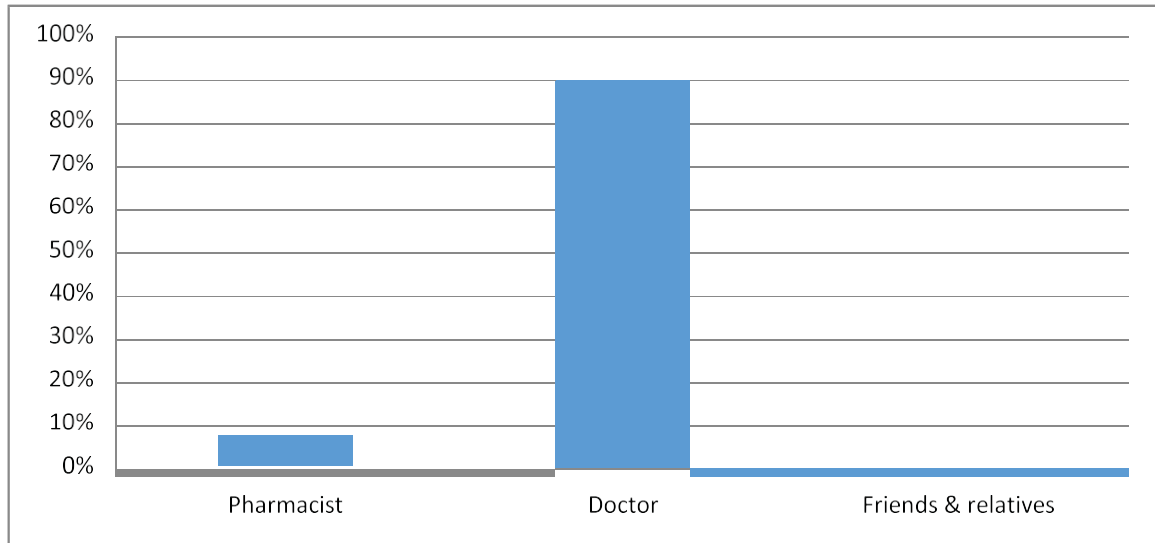


Figure 4: The main sources from which parents retrieved health information

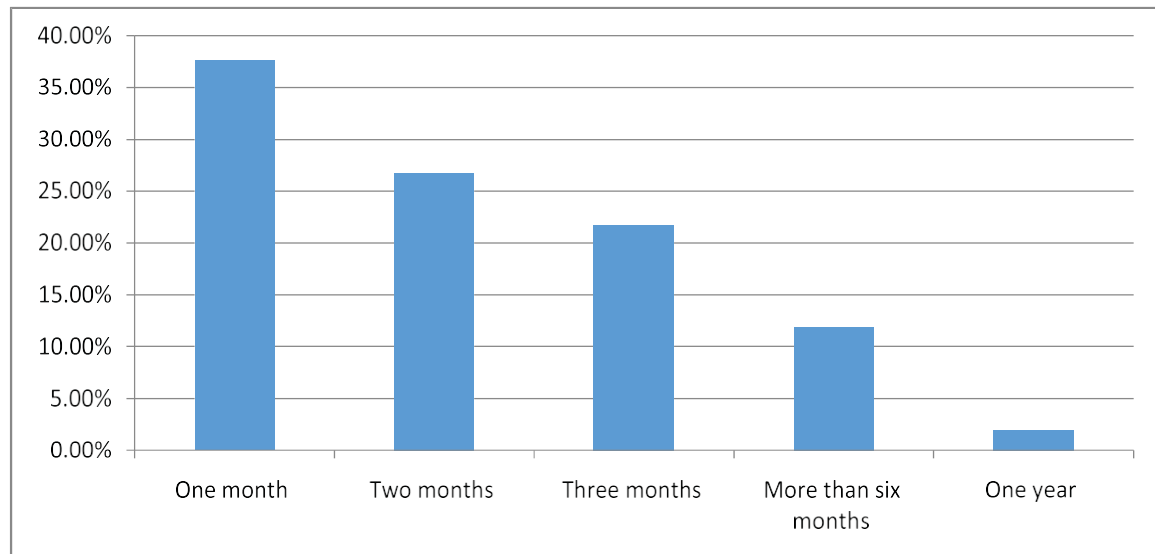


Figure 5: The interval with which parents self-medicate their children

the interviews were more than 40 years old 39 (38.61%), and they were dominantly non-healthcare workers 82 (81%). Regarding the parents' education level; 45 (44.55%) were university graduates as shown in Table 1.

Figure 1 and Figure 2 show, the most common diseases that parent self-medicated their children from and the most frequent medicines they tend to use. The most frequent medicines used were Panadol (paracetamol) 84 (83%) followed by cough syrups 61 (60%), although the most common self treated symptom was cough & cold 73 (72.27%).

In case of self-treatment failure most of the parents in the present study tend to consult general practitioners in private clinics 62 (61%), while 31 (31%) of them seek advice from child specialists in hospitals, as shown in Figure 3.

Figure 4 illustrates the main sources from which parents retrieved health information. Doctors were the first favourite source for 92 (91.0%) of parents, while pharmacists were the second choice for 7 (7.0%) of them and relatives were the third favourite option for 2 (2.0%) of the parents.

The study showed that 38 (37.62%) children had received parental self-medication in the last month, while 2 (1.98%) of them did the same in the last year. Table 2 shows the reasons of parental self-medication, the most common reasons were the expensive consultation fees and long waiting time

Table 1: Socio-demographic characteristics of parents (N=101)	
Characteristics	
Gender	
Male	48% (48)
Female	52% (53)
Age of parent (years)	
20-30	25.74% (26)
31-40	35.64% (36)
40 plus	38.61% (39)
Occupation of parents	
Healthcare	19% (19)
Non-health care	81% (82)
Education qualification of parents	
University	44.55% (45)
College	28.71% (29)
Matric	18.81% (19)
Illiterate	7.92% (8)
Number of children	
One	16.83% (17)
Two	30.69% (31)
Three	22.77% (23)
Four	17.82% (18)
Five	9.90% (10)
Five plus	1.98% (2)

Table 2: Reasons for parental self-medication to their children (N= 101)

Reason	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Doctors' fees are very expensive, while self-medication is less expensive	6% (6)	10% (10)	13% (13)	55% (56)	16% (16)
Long delays at clinics/hospitals	0.99% (1)	17.82% (18)	17.82% (18)	49.50% (50)	13.86% (14)
Medicines are easily obtained	6% (6)	6% (6)	7% (7)	52% (53)	29% (29)
Reuse of previous prescription	8.91% (9)	17.82% (18)	18.81% (19)	48.51% (49)	5.94% (6)
Imitating others in drug usage	8% (8)	21% (21)	53% (54)	14% (14)	4% (4)
I have good knowledge of allopathic drugs	16.83% (17)	29.70% (30)	24.75% (25)	22.77% (23)	5.94% (6)
I have good knowledge of herbal drugs	20.79% (21)	38.61% (39)	20.79% (21)	17.82% (18)	1.98% (2)

in the clinics. A large portion of parents disagreed that health care workers' attitudes were bad, or that information relayed to them was insufficient. Another important finding was 52 (51.4%) of parents were convinced that they can diagnose their children's illnesses by the symptoms.

Discussion

The study revealed that 95.7% of parents tend to liberally self-medicate their children for minor illnesses which could be considered as an irrational attitude. This is in agreement with Escourrouet *al.* study which decided that parents self medicate their children in France study mostly for mild pathologies.¹³ More than one third 38.5% of the children in this study had received parental self medication in the last month, while 28.6% of them received it in the last year. This attitude was common in many countries, for example a study conducted in China showed about 51% of children had received parental self-medication on six or more occasions during a year period and 32.8% on four to five occasions¹⁴. The most frequent medicines used were the antibiotics 36.6%, paracetamol 31.0% and cough syrups 7.7%, although the most common symptoms reported were fever 39.7%, cough 22.3% and flu 15.7%. The empiric treatment of fever with antibiotics without further microbiological investigations had been considered as a major component of irrational drug use among

communities of the developing countries¹⁵. Common cold and sore throat are usually viral pathological conditions that will induce bacterial resistance and decrease the efficiency of antibiotics¹⁶, overuse of antibiotics has been described worldwide in both community and hospital settings particularly in developing countries^{17,18}. In previous similar studies; the main groups of self prescribed drugs were: Analgesics/antipyretics and the main ailment was respiratory tract infection^{11,19,21}. Since medical consultations in public hospitals are less expensive than private ones; most of the present study participants, 64.0% used to go to public hospitals in case of self-medication failure. This finding in agreement with Malaysian study by Dawood *et. al.* which reported; most of the parents prefer to bring their children to consult a doctor in public hospitals.¹¹ The reasons of parental self medication obtained in this study were in line with the reasons reported in a study of antibiotics use among Chinese children carried out by Tong *et.al.*, showing that payment of the medical fees is an important reason of self-medication¹⁴.

Conclusions

The study uncovered that parents' knowledge was lacking, and their parental self medication practice demonstrated to be unseemly. Based on the results of our study, we conclude that there is a critical need of appropriate interventions to tackle this issue.

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