



## A STUDY OF MEDICATION USE DURING PREGNANCY IN SHARJAH-UNITED ARAB EMIRATES.

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### ABSTRACT

**Aims:** This investigation was carried out as a pilot study to explore the use of medications during pregnancy in Sharjah-UAE. **Methods:** An anonymous pre-piloted questionnaire was distributed to 250 pregnant women attending the obstetrics and gynecology department in a governmental hospital. The purpose of the questionnaire was explained to each participant and their consent of approval to participate in the study was taken. The questions covered demographic characteristics, dealt with willingness of participants to take prescription or over-the-counter drugs, the most commonly used drugs during pregnancy and the actual use of drugs during pregnancy at each educational level. The source of medications used was also determined. Data are expressed as frequency and percentage. **Results:** The response rate was 84%. The majority (134, 63.8%) of respondents were Arabs and those with 1-3 children comprised 169 (80.5%) respondents. Again, most participants were with high school certificates (68, 32.4%) and university Bachelor degree (86, 41%). Pregnant women who expressed willingness to take prescription and OTC drugs totaled to 139 (66.2%) and 71 (33.8%) respectively. The most commonly prescribed drugs include in order, vitamins and minerals, analgesics, antibiotics, antitussives, anti-peptic ulcer, antidiabetics, antihistamines and drugs for asthma. As sources of medications, the pharmacy ranked first with left over in home pharmacy second, followed by herbal stores, relative or friend and street market. **Conclusion:** There is a tendency in pregnant women to use medicines during pregnancy particularly OTC drugs and this seems to be associated with the level of education. Increasing public awareness about the use of medicines during pregnancy is an essentially needed intervention where mass media can play a significant role.

**KEYWORDS:** Prescription drugs, OTC, Pregnant women, Use.

### INTRODUCTION

Pregnant women may be compelled by acute or chronic diseases to take medications during the various stages of their pregnancy. However, since prescription and OTC drugs may cross the placenta and reach the fetus in hazardous concentrations, the possibility of them producing teratogenic adverse effects cannot be ruled out.<sup>[1]</sup> The guide for the categorization of drugs as classified by the Food and Drug Administration (FDA) is useful for prescribing drugs to pregnant women.<sup>[2]</sup> Category "A" drugs are those with the highest safety levels for use during pregnancy. This category includes drugs used therapeutically for long time with no reported complications. The problems encountered with drug administration during pregnancy may even be aggravated by self-medication in the unformed woman or by the ignorant pharmacist or physician. A Saudi study showed that pharmacists, in particular, providing inadequate drug-related information to pregnant women.<sup>[3]</sup>

Knowledge of pregnant women concerning the harmful effect of drugs is of great significance as inappropriate knowledge and wrong believes may lead to either unnecessary medical abortion or harm to the fetus.<sup>[4]</sup> On the other hand, noncompliance to necessary medication is not without its hazardous consequences. An earlier study in Norway has indicated that high percentage of pregnant women select not to use drugs because of their doubtful safety.<sup>[5]</sup> The present study was undertaken to explore the use of medication during pregnancy in Sharjah-United Arab Emirates.

### METHODS

A pre-validated questionnaire addressing knowledge, attitude and behavior of pregnant women towards the use of prescription and OTC drugs during pregnancy was distributed to 250 pregnant women. The questionnaire was pre-piloted by distributing it to 6 pregnant women and their comments were considered in the final version of the survey, but they were not included in the study. The questionnaire was explained to each participant who

filled it on the site of the personal interview. The questionnaire covered questions on demographic characteristics, whether the participant were willing to take drugs during pregnancy or not, the most commonly used prescription and/or OTC drugs, and source of drugs used. Data collected were analyzed and presented as frequency and percentage.

**RESULTS**

A total of 210 completed questionnaires were received, producing a response rate of 84%. Table 1 shows the demographic data of participants. The majority (134, (63.8%) of participants were Arabs and in the age group of 25-29 year and 169 (80.5%) of respondents were with 1-3 children. Taking medications by women in each educational levels is shown in Table 2. The majority (139, 66.2%) of pregnant women expressed willingness to take prescriptions drugs if necessary whereas 71 (33.8%) stated that they will take only OTC drugs (Fig.1) Again the majority (86, 41%) and (68, 32.4%) were with a university degree and high school certificate respectively. With the exception of the illiterate participants, the majority in each educational level were actually using medications during pregnancy. The most

commonly used medications are shown in Fig. 2. These were vitamins and minerals, analgesics, antibiotics, antitussives, anti-peptic ulcer, antidiabetics, antihistamines and drugs for asthma. The sources from which drugs were obtained are shown in Fig. 3. The community pharmacy was the main source to obtain medications with only 10% or less of participants using left over from home pharmacy or obtaining medicines from herbal store, friend or relative or street market.

Table 1. Demographic characteristics of pregnant women.

Criteria	Frequency (%) N=210
Age	
20-24	14 (6.7%)
25-29	158 (75.2%)
30-35	38 (18.1%)
Number of children	
1-3	169 (80.5%)
4-6	41 (19.5%)
Ethnicity	
Arabs	134 (63.8%)
Non-Arabs	76 (36.2%)
Educational level	
Illiterate	12 (5.7%)
High school certificate	68 (32.4%)
University degree	86 (41%)
Master	28 (13.3%)
Ph.D.	16 (7.6%)

Table 2. Frequency of taking medications during pregnancy by pregnant women of each education level.

Educational level	Are you taking any medication at present Frequency (%)		Total Frequency (%)
	Yes	Yes	
Illiterate	4 (1.9%)	8 (3.8%)	12 (5.7%)
High school certificate	54 (25.7%)	14 (6.7%)	68 (32.4%)
University degree	71 (33.8%)	15 (7.1%)	86 (41%)
Master	21 (10%)	7 (3.3%)	28 (13.3%)
Ph.D.	14 (6.7%)	2 (1%)	16 (7.6%)

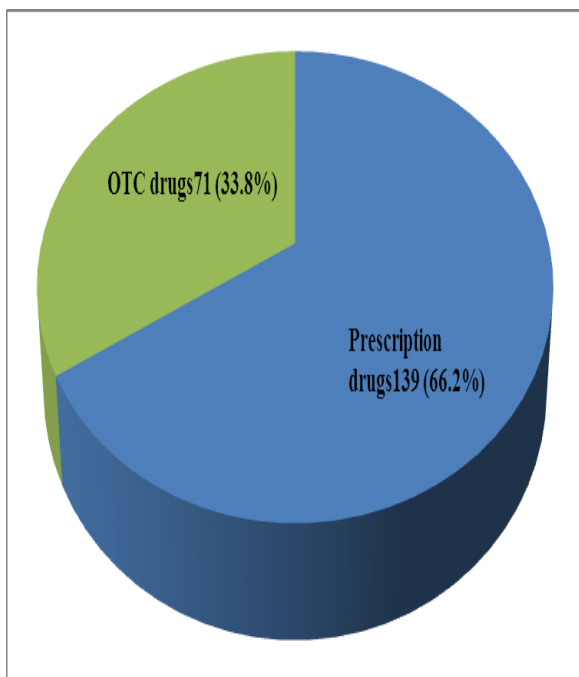


Fig.1. Distribution of pregnant women willing to take prescription or OTC drugs during pregnancy.

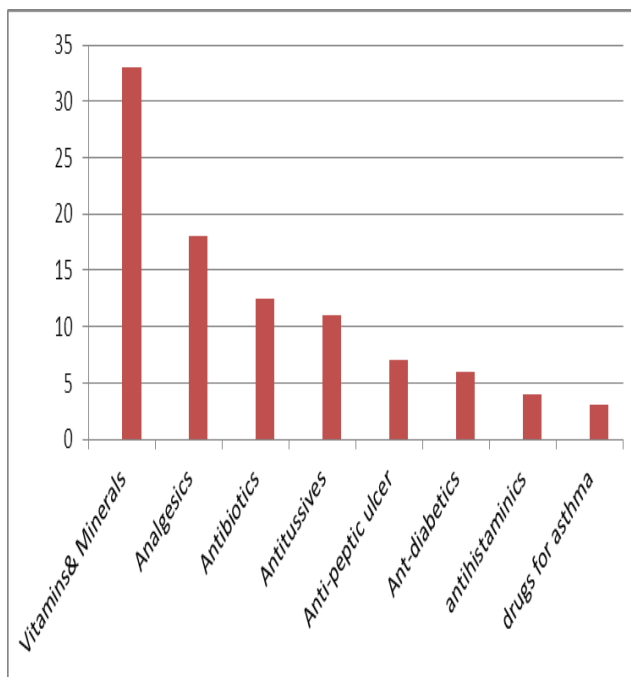
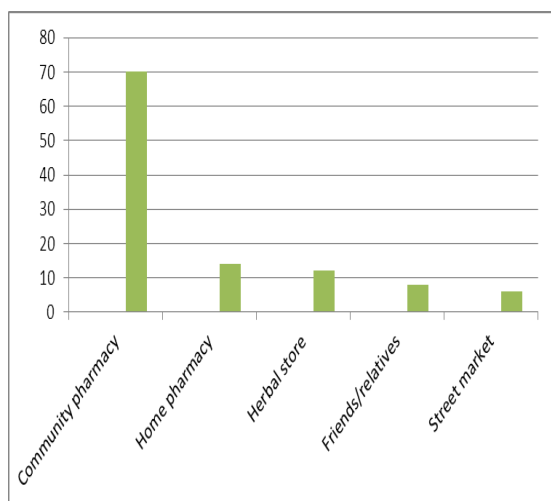


Fig.2. Percentages of the most commonly medications used by pregnant women.



**Fig.3. Percentages of pregnant women obtaining medications from various sources.**

### DISCUSSION

This pilot study on use of medication during pregnancy indicated that the majority of participants admitted using prescription drugs while only one third admitted using OTC drugs. This may indicate a trust of pregnant women in drugs prescribed by a responsible physician. On the other hand, those using OTC drugs may believe that such medications pose no harm to the fetus when taken during pregnancy. However, the point that this may also indicate an attitude towards self-medication with supplements to boost health of mother and fetus and use of OTC drugs for minor illnesses. This is substantiated by our finding that the highest level of OTC use was for vitamins and minerals, seconded by analgesics. This is reminiscent with the results of studies in Omani women.<sup>[6,7]</sup> In addition OTC medication use was shown to be high in pregnant women and included drugs like ibuprofen that are contraindicated in pregnancy.<sup>[8]</sup> In agreement with earlier studies.<sup>[9-11]</sup> we also found that medication use is higher in educated than in the uneducated women. Pregnant women seem to use a range of OTC drugs, including supplements, analgesics, antihistamines, antacids and a variety of herbal preparations. This has been shown to be the case in a multinational web-based study where the investigators concluded that the use of medications for acute/short-term illnesses and chronic/long-term disorders, as well as use of OTC medications, was common during pregnancy.<sup>[12]</sup> Due to lack of strong evidence-based supporting the use of OTC drugs during pregnancy, their safety for mother or baby has been questioned.<sup>[13]</sup> In the present study two thirds of pregnant women agreed to take prescriptions drugs if necessary while the rest stated that they will take only OTC drugs. The latter group, most likely, believes that unlike prescription drugs OTC ones are safe to be taken during pregnancy. This point is substantiated by the findings that OTC drugs are overused by pregnant women.

In general drugs whether prescription or OTC medications should be used after consultation during

pregnancy because of the possible deleterious effects to the fetus. However, since many pregnant women have health conditions that warrant the use of medicines, the benefit must be carefully weighed against the risk of using medications during pregnancy and only safe drugs should be prescribed. Our results point out the importance of efforts to increase public awareness of the risks conferred by the irrational use of medications during pregnancy.

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**Conflict of interest:** None declared.

**Ethical approval:** Was obtained from the Institutional Ethical Committee.

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