Research Article

Al-Iraqia Medical College Journal (AIMCJ)
ISSN (Online): 3104-4565
ISSN (Print): 3104-4557

Knowledge, Attitudes, and Practice regarding Medication use in Pregnant Women

Reem Ali Haddad[1], Nada A. Muneam*[2], Suha. A. Muneam[3]

[1] Department of Gynecology and Obstetrics, College of Medicine, Al-Iraqia University.
[2] Deparment of Physiology, Al-Iraqia University/ College of Medicine -Baghdad, Iraq.
[3] Deparment of Chemistry and Biochemistry, Al-Iraqia University/ College of Medicine -Baghdad, Iraq.
[4] Research Team Department of Family and Community Medicine.
Ahmed Majed Saleh, Alaa Ibrahim Salman, Inq Shihab Ahmed Shihab, Bara Ra Abbas Farhan, Bushra Muhammad, Hassan, Tabarak Khaled Mal Allah, Hassan Ammar Abdul Ali Abdul Hussein, Hussein Muhammad Ali Akbar Hama, Hawra Ahmad Ismail Abdul Amir, Dunya Najib Ali Hadi, Rafel Samir Fakhr, Raneen Hassan Hadi Salman, Reem Samir Khudair, Zahraa Ahmad Youssef Na'am, Zahraa Haider Mansour JaafarZainab Al-Hawra Kareem Abdullah Kazim, Sarah Yousef Abbas Saleh. Samer Hassan Saeed Hussein Al-Latif, Saba Saeed Ibrahim Hammadi, Sajjad Qasim Hassan Diwan, Sajjad Muhammad Mutlaq Yousef, Sari Riyadh Aziz Zarrouk, Salam Adel Mohi Nour, Suha Ghanem Hamid Mujbil, Safaa Hussein Naji Kazim, Abdul Latif Imad Abdul, Ali Ahmed Jawad, Ali Hussein Mahdi Abbas, Ali Talib Hamoud Jarallah, Ammar Hassan Hadi Salman. Mustafa Khorshid Amir, Mustafa Talib Lafta, Nour Mazhar Khalaf, Heba Hassan Muhammad Ali, Huda Hamed Fazaa

ARTICLE INFO
Received: 3/ 10 / 2024
Revised: 20/ 11 / 2024
Accepted: 15/ 1/ 2025
Publish online: 15/4/2025

* Corresponding Author: Nada A. Muneam
Email: nada.a.muneam@aliraqia.edu.iq.

CITATION

Haddad RA, Muneam NA, Muneam SA. Knowledge, attitudes, and practice regarding medication use in pregnant women. *AIMCJ*. 2025;1(2):22-32.

DOI: https://doi.org/10.58564/AIMCJ2.1.2025.111

Abstract

It has become evident that the use of medications, either with or without physician's prescription and over-the-counter, among pregnant women have increased in the past years all over the world. The study aims to estimate the prevalence of self-medication among pregnant women in Baghdad city, to identify the knowledge about self-medication among pregnant women in Baghdad city, and to recognize the awareness about drugs used by pregnant women. A across sectional study with use of self-completed questionnaire that distributed for 315 pregnant women in many hospitals like: Alnoman, Imam Alkazm, Alawi, Habibiya, Suleiman Alfayadi health center. Study was conducted during 14 weeks. The study revealed that most of pregnant women take self-medication while one third refused it.

Key words: Knowledge, attitudes, practice, medication, pregnant women

Introduction:

It has become evident that the use of medications, either with or without physician's prescription and over-the-counter, among pregnant women have increased in the past years all over the world (1-2). Medications use may be due because the population frequently become pregnant with conditions which require continuous or episodic therapy (3-4) or pregnancy-induced medical conditions with the need of pharmacological treatment (5-6). There is evidence that inappropriate medications use during pregnancy may put the mother at greater potential risk for several maternal and unborn child adverse outcomes (7-8). In this context, proper management of medications use is of utmost public health importance and should be high on the agenda for health policymakers.

Harmful drugs, substances and medications:

Some drugs, substances or medications may be harmful during pregnancy, depending on the amount and frequency of use. These include:

Medicines – including some prescription drugs, over-the-counter medicines and complementary medicines, such as herbal remedies or nutrition supplements Prescription drugs bought on the street and not prescribed for you – such as benzodiazepines or opiate-based pain medication such as codeine or panadeine forte. These can be very problematic if not taken as directed by your doctor.

- Tobacco
- Alcohol
- Caffeine – for example, tea, coffee and cola drinks in large quantities

Illegal drugs – such as cannabis, heroin, cocaine, GHB or methamphetamines or amphetamines Substances used as drugs – such as inhalants (glues or aerosols). Drugs such as heroin or methamphetamine are often mixed with unknown substances. These unknown substances can also be harmful to the pregnancy or baby (9).

Birth abnormalities and medicines taken during pregnancy:

The risk of a birth abnormality for any baby is about 4 per cent, regardless of the circumstances during pregnancy. This means that even a woman who strictly avoids drugs and medications while pregnant may still have a baby with a birth abnormality. Most medicines are not harmful to a developing baby. However, some may interfere with the normal development of a fetus (these medicines are described as 'teratogenic This list is not complete. For example, the teratogenic effects of illegal drugs (such as cannabis or methamphetamines) are not clear, because of the lack of medical studies. And here we should remember the pregnancy cosist of three trimester and most dangerous period for baby and maternal is first trimester. The first trimester is the most crucial to your baby's development. During this period, your baby's body structure and organ systems develop. Most miscarriages and birth defects occur during this period (10).

Your body also undergoes major changes during the first trimester. These changes often cause a variety of symptoms, including nausea, fatigue, breast tenderness and frequent urination. Although these are common pregnancy symptoms, every woman has a different experience. For example, while some may experience an increased energy level during this period, others may feel very tired and emotional (11-13).

So pregnant women should always be awair about any medication take it during all period of pregnancy and their side effect on her baby and her pregnancy.

Aims of the study:

1. Estimate the prevalence of self-medication among pregnant women in Baghdad city.
2. Identify the knowledge about self-medication among pregnant women in Baghdad city.
3. Recognize the awareness about drugs used by pregnant women.

Materials &Methods

Study design and population:

This was across sectional study in which an anonymous self-completed questionnaire was distributed to more than 315 pregnant women in many hospitals like: Alnoman, Imam Alkazm, Habibiya, Suleiman Alfayadi health center. Study was conducted during 14 weeks. Study period from November 2022 to March 2023.

Inclusion criterion was women who are currently pregnant written informed consent was obtained before participation in the study , the study conformed to the ethical principles of national committee of the medical and bioethics ,this was also done with the consent of the patient , after we introduced ourself and explained the paragraphs of the questionnaire to her and that it talk about the use of medication and the extent to which the patient knows the benefits of the medication that she takes without the consulting the doctor and what are its risks.

Data collection:

The standardized questionnaire began with a preamble of the study and the length of the interview was approximately 20 minutes. The questionnaire consisted of 35 questions in 5 sections and is found in S1 File.

The first section explored the socio-demographic (i.e., age, marital status, education level, employment status, Residence) and medical data (number of so (1-2). ns, any miscarriage, which trimester she is pregnant currently, and any medical problem). A high-risk pregnancy was defined as a pregnancy in which are present existing health conditions, such as diabetes, high blood pressure, kidney disease, or being HIV-positive, overweight, obesity, multiple birth, substance abuse, young or old maternal age, or toxic exposures.

The second section was used to measure the level of knowledge about specific aspects of medications use during pregnancy, including the possibility of harm to the unborn and to their health, and the potential risk regarding the use of non-prescribed medications and the Response by yes or no.

The third section was used to assess whether respondents would be willing or not to use medications while pregnant without the prescription of a physician. Participants were also asked the reason(s) of their attitude.

The fourth section was used to evaluate the practice, by asking if the women had used medications, not including vitamin, mineral supplements, and herbal treatment (i.e., health problem for the use, compliance to dose regimens, duration of treatment), with or without the prescription during the current and previous pregnancy.

The fifth section was used to evaluate the source(s) of information on medications use during pregnancy and the interest in learning more.

The research assistants collected the data through a face-to-face pretested questionnaire in the waiting room. Data collection was

conducted after explanation to each woman background, objectives, data protection, and privacy. All participants, before answering signed an informed consent form explaining the study procedures and that they were free to leave

Data analysis

The questionnaire was first developed in English then translated into Arabic language and the survey was administrated in bilingual format (Arabic, English). We used Excel to count the samples and know the total number that was collected.

Results & Discussion:

Table 1 was noticed that around 50% of pregnant women between age 25-34 97.8 % of them were married only 1.9% divorced and 0.3% were widowed Around 65% of pregnant women were housewives while the employed-out questions if they did not wish to answer. The participants were assured that all information was kept confidential, because no names were recorded. The participants did not receive any compensation for participating. women in health field were just 1.6% Regarding educational levels: the pregnant women with bachelor's degree were 35.6% while Illiterate were just 5.4% Their residence of studied women were around 94% urban.

Table 2 was noticed that that pregnant women having already more than two children were 29.2% and it was the highest percentage Around 6% of them were experienced previous abortion 18.7% were just one abortion Around half of the pregnant women were in their third semester (50.8%) The majority of studied women were with no health problems (78.4%) While 8.6% were suffering from hypertension And 4.1% from DM.

Table 3 was noticed around 90% of pregnant women were taking self medication 44.8% from simple diseases 77.8% were taking antibiotics 58.7% were taking vitamins.

Table 4 was noticed that around 25% of pregnant women think that all drugs harm the baby And 15.9% does not think that most dangerous period for self-medication is during first trimester.

Regarding the reasons of why pregnant women taking self medication. Table 5 noticed that women 36.8% of pregnant women refused Pharmacist consult 37% refused that a health problem is not serious.

Table 6 notice that there are 47.6% of pregnant women agreed on Waiting for medical consult 40.6% refused to take herbal medicines. Around 29.5% of them were neutral about countring a problem with self- medication previously.

Table 7 show that there was 80.3% of pregnant women were taking drugs in pregnancy. 42% were taking Folic acid 38.7% were taking vitamins, and 5.7% were taking iron supplements.

Table 8 showed that Gynecologist (95.6%) Pharmacist 6.70% Nurses 4.10% General doctors 7%.

Table (1) Socio-demographic characteristics of the partecipints:

Characteristics	Frequency	Percent (%)
Age (year)		
18 -24	115	36.5%
25 -34	159	50.5%
35 -49	41	13%
Marital status		
Married	308	97.8%
Divorced	6	1.9%
Widowed	1	0.3%
Occupation		
Employed	109	34.6%
Housewife	206	65.4%
Employed in health field	5	1.6%
Educational level		
Illiterate	17	5.4%
Primary school	61	19.4%
Secondary school	94	29.8%
Diploma	25	7.9%
Bachelor's degree	112	35.6%
Graduate studies	6	1.9%
Residence		
Urban	297	94.3%
Rural	18	5.7%

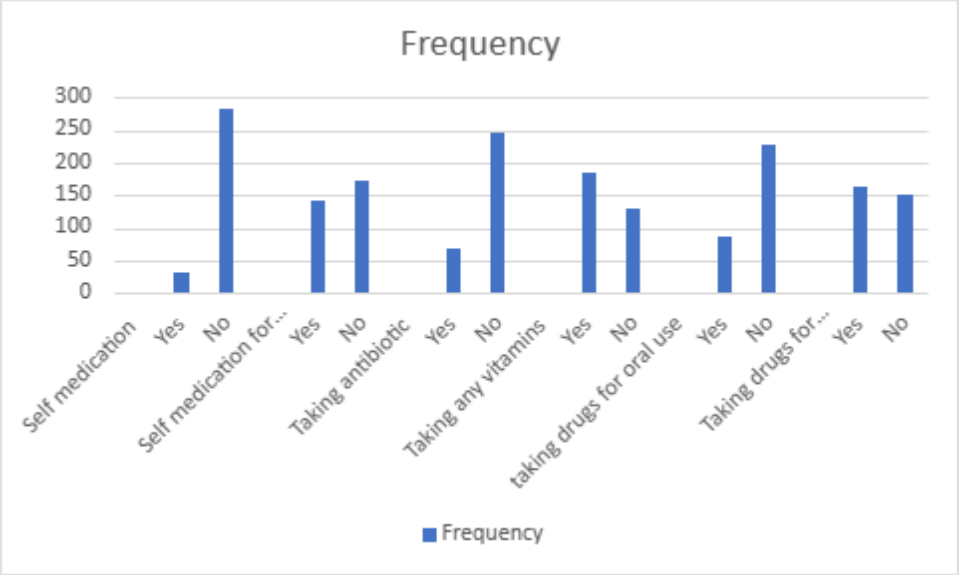

Figure (1) Pregnant women's attitude towards self-medication in Baghdad city, 2023.

Table (2) Obstetric characteristics of pregnant women in Baghdad city, 2023.

Characteristics	Frequency	Percent
Number of parities		
No child	68	21.6%
One child	85	27%
Two children	70	22.2%
More than two	92	29.20%
Dead child		
Yes	20	6.3%
No	295	93.7%
Previous abortion		
Yes	81	25.7%
No	234	74.3%
Number of abortions		
One	59	18.7%
Two	19	6%
More	3	1%
Gestational age		
First trimester	68	21.6%
Second trimester	81	25.7%
Third trimester	160	50.8%
Health problems		
No	247	78.4%
Hypertension	27	8.6%
DM	13	4.1%
Anemia	12	3.8%
Thrombosis	7	2.2%
Inflammatory disorder	6	1.9%
Other	13	4.1%

Table (3) Pregnant women's attitude towards self-medication in Baghdad city, 2023.

Characteristics	Frequency	Percent
Self-medication		
Yes	31	9.8%
No	284	90.2%
Self-medication for simple disease		
Yes	141	44.8%
No	174	55.2%
Taking antibiotic		
Yes	70	22.2%
No	245	77.8%
Taking any vitamins		
Yes	185	58.7%
No	130	41.3%
taking drugs for oral use		
Yes	86	27.3%
No	229	72.7%
Taking drugs for topical use		
Yes	165	52.4%
No	150	47.6%

Table (4) Pregnant women's knowledge about self-medication in Baghdad city, 2023.

Characteristics	Frequency	Percent
I think that all drugs harm the baby		
Yes	80	25.4%
No	235	74.6%
I think the most dangerous period for self-medication is during first trimester		
Yes	265	84.1%
No	50	15.9%

Table (5) Reasons of why some pregnant women taking self-medication in. Baghdad city, 2023.

Reasons	Agree	Strongly Agree	Neutral	Refuse	Strongly refuse
The health problem is not serious	59	12	40	117(37%)	87
I have previous medical prescription	64	7	36	126(40%)	82
Emergency	67	12	64	124(39.4%)	48
Pharmacist consult	104	17	44	116(36.8%)	34
Relatives and friends consult	27	0	29	134(42.5%)	125
I have previous prescription from doctor	87	10	32	136(43.2%)	50
I can't get to the doctor(distance/time)	59	2	117(37%)	96	41
I have knowledge about side effects	82	6	58	133(42.2%)	36
I have experience taking medications during pregnancy	67	11	51	134(42.5%)	52

Table (6) Reasons of why some pregnant women do not want to take self-medication

Reasons	Agree	Strongly agree	Neutral	Refuse	Strongly refuse
Waiting for medical consult	150(47.6%)	117	27	20	1
I use herbal medicines	66	16	63	128(40.6%)	42
I am concerned about the risks to my health and health of the baby	127	130(41.2%)	33	12	13
I encountered a problem with self-medication previously	77	33	93(29.5%)	92	20

Table (7) Most common drugs used by pregnant women during the current and previous pregnancy in Baghdad city, 2023

Taking drugs in present pregnancy	Frequency	Percent
Yes	253	80.30%
No	62	19.70%
Types of drugs		
Folic acid	133	42.20%
Vitamins	122	38.70%
Iron supplement	41	13%
Progesterone and stabilizer	27	8.60%
Antibiotics	23	7.30%
Anti-inflammatory	21	6.70%
Antihypertensive	19	6%
Analgesia	18	5.70%
Hypoglycemic	11	3.50%
Other	49	15.60%
Taking drugs in previous pregnancy		
Yes	158	50.10%
No	157	49.90%
Types of drugs		
Vitamins	72	22.90%
Folic acid	69	21.90%
Iron supplement	18	5.70%
Antihypertensive	18	5.70%
Progesterone and stabilizer	15	4.80%
Anti-inflammatory	12	3.80%
Analgesia	11	3.50%
Hypoglycemic	10	3.10%
Antibiotics	9	2.90%
Other	27	8.60%

Table (8) Source of information about the drugs.

Source of information	Frequency	Percent
General doctor	22	7%
Gynecologist	301	95.60%
Pharmacist	21	6.70%
Nurse	13	4.10%
Media	1	0.30%
Relatives and friends	3	1%

CONCLUSION:

It was found that most of pregnant women take self-medication and one third refused it. There

-Pharmacist consult

-knowledge about side effects It's noticed that one third of pregnant women refused Pharmacist consult due to:

1. about half of pregnant women Waiting for medical consult
2. have concerned about the risks to their health and health of the baby
3. encountered a problem with self- medication previously.

The most common drug used by pregnant women are Folic Acid, Vitamins, Iron supplements, Progesterone and antibiotics It is recommended that healthcare providers should address pregnant women about the effects and unsafe use of conventional and herbal medicines.

1. Consult with a healthcare provider: Your healthcare provider is the best resource for information about drug use during pregnancy. They can help you weigh the benefits and risks of taking medication and make a recommendation based on your specific situation.

2. Look for reputable sources: There is a lot of information available on the internet, but not all of it is reliable. Look for information from reputable sources, such as government agencies (e.g., the FDA, CDC), academic institutions, and healthcare organizations

3. Be cautious with herbal supplements: Just because something is natural doesn't mean it's safe during pregnancy. Herbal supplements and other alternative therapies may have unknown effects on pregnancy and should be used with caution

4. pregnant women should know some conditions that are common during pregnancy, such as nausea and heartburn, may be managed with lifestyle changes and home remedies rather than medication

are a lot of reasons of why pregnant women taking self-medication:

-They think that health problem is not serious

-They have previous medical prescription

5. Stay informed and advocate for yourself: and don't be afraid to speak up and ask questions if you have concerns about a medication or treatment.

6. don't take any medication, including over-the-counter medications. Self-diagnosis and self-treatment with medications bought from a pharmacy without consulting a healthcare provider can be harmful to both the mother and the baby.

References

1. Mitchell AA, Gilboa SM, Werler MM, Kelley KE, Louik C, Hernández-Díaz S, Study NB. Medication use during pregnancy, with particular focus on prescription drugs: 1976-2008. *American journal of obstetrics and gynecology.* 2011 Jul 1;205(1):51-e1.
2. Smolina K, Hanley GE, Mintzes B, Oberlander TF, Morgan S. Trends and determinants of prescription drug use during pregnancy and postpartum in British Columbia, 2002–2011: a population-based cohort study. *PloS one.* 2015 May 26;10(5):e0128312.
3. Lupattelli A, Spigset O, Twigg MJ, Zagorodnikova K, Mårdby AC, Moretti ME, Drozd M, Panchaud A, Hämeen-Anttila K, Rieutord A, Juraski RG. Medication use in pregnancy: a cross-sectional, multinational web-based study. *BMJ open*. 2014 Feb 1;4(2):e004365.
4. Hasan RT, Ali RM, Hussein EA. Effectiveness of an educational program on nurses-midwives' practices about pain management during labor in Baghdad maternity hospitals. *Indian Journal of*

Forensic Medicine & Toxicology. 2020 Apr 29;14(2):1866-71.

5. Sawicki E, Stewart K, Wong S, Leung L, Paul E, George J. Medication use for chronic health conditions by pregnant women attending an Australian maternity hospital. Australian and New Zealand *Journal of Obstetrics and Gynaecology.* 2011 Aug;51(4):333-8.

6. de Jonge L, de Walle HE, de Jong-van den Berg LT, van Langen IM, Bakker MK. Actual use of medications prescribed during pregnancy: a cross-sectional study using data from a population-based congenital anomaly registry. *Drug Safety*. 2015 Aug;38(8):737-47.

7. Ali E. Early pregnancy hemoglobin levels as a prediction of preeclampsia. *Int J Adv Res*. 2016;4(10):16-19.

8. Heitmann K, Holst L, Lupattelli A, Maltepe C, Nordeng H. Treatment of nausea in pregnancy: a cross-sectional multinational web-based study of pregnant women and new mothers. *BMC pregnancy and childbirth*. 2015 Dec 1;15(1):321.

9. Viale L, Allotey J, Cheong-See F, Arroyo-Manzano D, Mccorry D, Bagary M, Mignini L, Khan KS, Zamora J, Thangaratinam S. Epilepsy in pregnancy and reproductive outcomes: a systematic review and meta-analysis. *The Lancet.* 2015 Nov 7;386(10006):1845-52.

10. Li DK, Yang C, Andrade S, Tavares V, Ferber JR. Maternal exposure to angiotensin converting enzyme inhibitors in the first trimester and risk of malformations in offspring: a retrospective cohort study. *Bmj*. 2011 Oct 18;343.

11. New South Wales Department of Health. National clinical guidelines for the management of drug use during pregnancy, birth and the early development years of the newborn. Sydney, NSW: *New South Wales Department of Health*. 2006.

12. Bánhidy F, Lowry R, Czeizel AE. Risk and benefit of drug use during pregnancy. *International journal of medical sciences*. 2005 Jul 1;2(3):100.

13. Ali IT, Haddad NIA, Hussein EA. Correlation of serum adiponectin and C-reactive protein with other biochemical parameters in Iraqi pregnant women. *Chem Methodol*. 2022;6:357-65.