

Incidence of Herbal Use among Pregnant Women Attending Family Care Center

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ABSTRACT

Background and Aim: Numerous investigations around the globe verified the increasing trend of medicine and complementary use in pregnant women. Pregnant women are not informed of potential teratogenic effects from traditional medicines; some herbal products may cause birth defects in humans. Pregnant women's use of traditional medicine has not yet been evaluated in Pakistan. The present study aimed to determine the incidence of herbal use among pregnant women attending family care centers.

Material and Methods: This hospital-based cross-sectional study was conducted on 320 pregnant women attending Family care centers in Jamshoro Hyderabad and Mirpur AJK for the duration of six months from January 2022 to June 2022. Pregnant women attending antenatal care and volunteering to respond were enrolled and those with mental illness and were unwilling to respond were excluded. Herbal medicine self-medication was a dependent variable whereas gestational age, sociodemographic details, and herbal medicine history were independent variables. A questionnaire was designed for determining prior history of herbal use, types of herbal medicine, herbal used in current pregnancy. SPSS version 26 was used for data analysis.

Results: Of the total 320 pregnant women, the incidence of herbal use was 86 (26.9%). Based on age, pregnant women were grouped as follows: 64 (20%) in 17-25 years, 148 (46.2%) in 26-35 years, and 108 (33.8%) 35-45 years. The prevalence of herbal usage in the first, second, and third trimesters was 62 (72.1%), 9 (10.5%), and 8 (9.3%), respectively, among 86 herbal-using pregnant women. About 7 (8.1%) pregnant women used herbs in all trimesters. Garlic (*Allium sativum*) 32 (37.2%), Ginger (*zingiberofcinale*) 40 (46.5%), Eucalyptus 6 (7%), and tenaadam 8 (9.3%) were different types of herbs used by pregnant women.

Conclusion: The present study found that about 26.9% pregnant women used herbal medicine during pregnancy. Majority of women used herbal medicine in the first trimester followed by second and third. Ginger was the most commonly used herbal medicine followed by garlic and tenaadam. Nausea, morning sickness, and vomiting was the most prevalent clinical indications.

Keywords: Herbal Medicine, Prevalence, Trimester, Pregnant women

INTRODUCTION

Several developing and industrialized countries are increasingly using herbal medicines, although little is known about their safety or effectiveness, particularly during pregnancy [1]. The herbal medicines include raw or processed ingredients derived from plants, which have been perceived as having therapeutic effects [2, 3]. These include herbs, herbal materials, herbal preparations, and finished herbal products containing plant parts or other plant materials as actual ingredients [4]. The use of traditional medicine during pregnancy is estimated to be around 80% in rural areas in developing countries [5, 6]. It has been found that use of herbal medicines during pregnancy varies significantly between countries [7], but many of the same herbs are used. A previous study found that herbal medicines were used at a high rate of 68 % [8], while a study on the African continent found that it was used at a low rate of 12 % [9].

The herbal medicines had the potential to cause adverse reactions, just as modern pharmaceutical drugs [10]. A variety of factors contribute to such adverse reactions, such as inherently toxic herbal medicines and overdosing with them, interactions between conventional drugs and herbal medicines, and idiosyncratic reactions like allergies [11]. As a result, using herbal medicines during pregnancy instead of scientifically proven treatments can have serious consequences. These include premature delivery and fetal distress, intrauterine growth restriction, and congenital malformations, fetal distress and fetal mortality [12, 13], among others. One of herbal medicine's many biological properties is its ability to contract the uterus, which may result in abortions [14]. Despite knowing the herbal medicine adverse effects during pregnancy, herbal products are teratogenic and frequent in pregnancy mostly self-treated [15]. In general, many factors contributed to herbal use during pregnancy including ease of access, high cost of modern healthcare, safety of herbal products, and socio-demographic characteristics [16]. In contrast,

unsafe herbal products were frequently used in women seeking abortion causing fetal loss [17]. The present study aimed to determine the incidence of herbal use among pregnant women attending family care center.

METHODOLOGY

This hospital-based cross-sectional study was conducted on 320 pregnant women attending Family care centers from Jamshoro Hyderabad and Mirpur AJK for the duration of six months from January 2022 to June 2022. Pregnant women attending antenatal care and volunteering to respond were enrolled and those with mental illness and were unwilling to respond were excluded. Herbal medicine self-medication was a dependent variable whereas gestational age, sociodemographic details, and herbal medicine history were independent variables. A questionnaire was designed for determining prior history of herbal use, types of herbal medicine, herbal used in current pregnancy. Other dependent variables were medication types, traditional medicine preparation, disease type, herbal medicine preference, and use method were dependent variables. Demographic details, use of herbal medicine during pregnancy, obstetrics characteristics, herbal medicine characteristics, and pregnancy related factors were used for qualitative and quantitative variables. SPSS version 26 was used for data analysis. Quantitative variables were expressed as mean and standard deviation. Qualitative variables were described as frequency and percentages. Incidence of herbal use was calculated based on study population. All the descriptive statistics were carried out taking 95% confidence interval and 5% level of significance.

RESULTS

Of the total 320 pregnant women, the incidence of herbal use was 86 (26.9%). Based on age, pregnant women were grouped as

follows: 64 (20%) in 17-25 years, 148 (46.2%) in 26-35 years, and 108 (33.8%) 35-45 years. The prevalence of herbal usage in the first, second, and third trimesters was 62 (72.1%), 9 (10.5%), and 8 (9.3%), respectively, among 86 herbal-using pregnant women. About 7 (8.1%) pregnant women used herbs in all trimesters. Garlic (*Allium sativum*) 32 (37.2%), Ginger (*zingiberofcinale*) 40 (46.5%), Eucalyptus 6 (7%), and tenaadam 8 (9.3%) were different types of herbs used by pregnant women. Figure-1 illustrates the age-wise distribution of pregnant women. Sociodemographic details are shown in Table-I. The incidence of herbal use in the first, second, and third trimester is shown in Figure-2. Types of herbal medications are depicted in Figure-3. Table-II represents the most common indications of herbal used pregnant women.

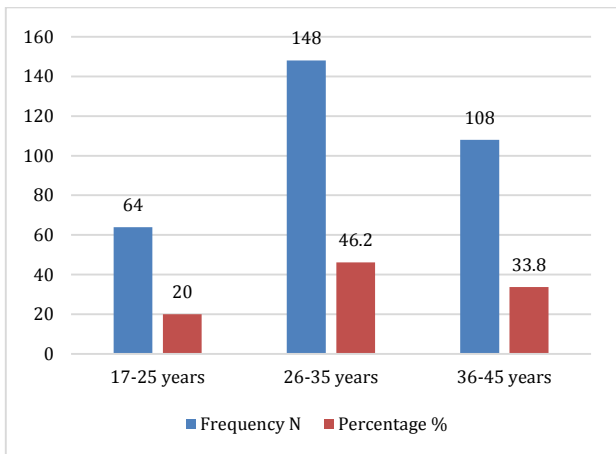


Figure-1: Age-wise distribution of pregnant women (n=320)

Table-1: Sociodemographic details of pregnant women (n=320)

Parameters	Value N (%)
Age (years)	32.8±4.21
Education	
Illiterate	56 (17.5)
Primary	88 (27.5)
Secondary	72 (22.5)
Bachelor	62 (19.4)
Post-graduate	42 (13.1)
Job status	
Employed	154 (48.1)
Housewife	166 (51.9)
Smoking status	
Smoker	14 (4.4)
Non-smoker	306 (95.6)

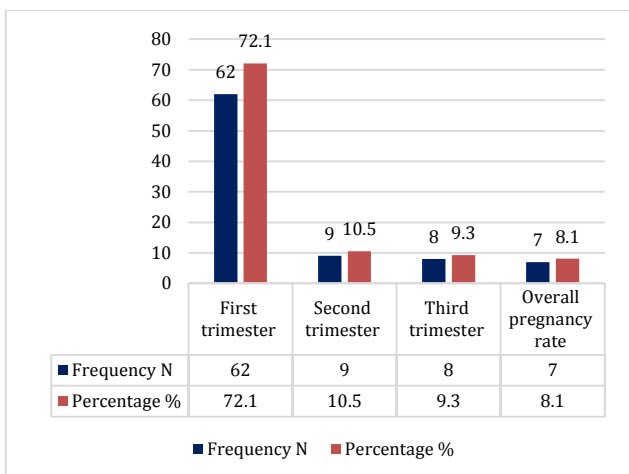


Figure-2: incidence of herbal use in first, second, and third trimester among herbal used pregnant women (n=86)

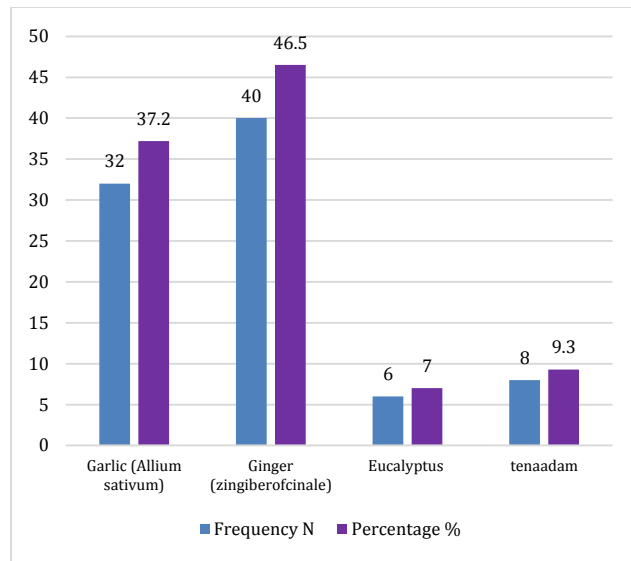


Figure-3: Types of herbal medication used by pregnant women (n=86)

Table-2: most common indications of herbal used pregnant women (n=86).

Indication	Frequency N	Percentages %
Vomiting	14	16.3
Cough	13	15.1
Abdominal Pain	8	9.3
Morning sickness	18	20.9
Nausea	21	24.4
Malaria	3	3.5
Without indications	9	10.5

DISCUSSION

The current study mainly focused on determining the incidence of herbal medication used among pregnant women and found that the prevalence of herbal use was 26.9% among pregnant women. The majority of women used herbal medicine during their first trimester, followed by their second and third trimesters. The most commonly used herbal medicine was ginger, followed by garlic and tenaadam. The most common clinical indications were nausea, morning sickness, and vomiting. The present study findings were comparable to a previous study by D.A. Kennedy et al [18]. The incidence of herbal medication use during pregnancy was lower than the other studies reported prevalence among pregnant women [19, 20], however, higher than Mensah et al [21] reported prevalence of herbal medication. The possible explanation could be differences in social-cultural, access to health care facilities, and population differences.

A Nigerian based study reported that the prevalence of herbal medicine during pregnancy was 36% among pregnant women [22]. Herbal medication uses could be significantly affected by education and age. With advancement of age and education, the herbal medication usage increased. Chamomile (11%), raspberry leaf (14%), and ginger (12%) were widely used among herbal supplements whereas in the present study the common supplements were ginger, garlic, and tандаам [23]. Ginger and garlic were the most prevalent herbal medicine used by pregnant women in the current study. In contrast, another study found that the most common medical plants were *Ocimum lamiifolium* L, *Linum usitatissimum* L. and *Carica papaya* L. among pregnant women [24]. The herbal medicine easy availability could be the possible reason for these differences.

The herbal medication's main purpose among pregnant women was to control vomiting, nausea, and headache or morning sickness in the present study. A previous study revealed that headache and constipation were the most prevalent herbal medicine indications [25]. These differences in herbal medication indications could be attributed to the differences in geographical

location and community attitude toward these medicines. Another systematic review reported similar findings regarding the indications of herbal medicine among pregnant women [26].

Most pregnant women believed that herbal medication during pregnancies were safe and effective, these findings were comparable to a study conducted by Leke et al [27] and Duru et al [28] results. During pregnancy, herbal medicine was mostly used by women belonged to rural areas as compared to urban counterparts.

In the present study, herbal medicine was mostly used in the first trimester followed by second and third trimester whereas 8.1% used herbal medicine in overall pregnancy. However, another study reported that mainly herbal medicine was used in the second (23%) and third trimester (21%). In pregnant women, herbal medication in different trimesters leads to variations and different effects from one to another setting [29].

CONCLUSION

The present study found that about 26.9% pregnant women used herbal medicine during pregnancy. Majority of women used herbal medicine in the first trimester followed by second and third. Ginger was the most commonly used herbal medicine followed by garlic and tenaadam. Nausea, morning sickness, and vomiting was the most prevalent clinical indications.

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