

A Study to Assess the Prevalence of Self-medication and Its Associated Factors Among Pregnant Women in Selected Tertiary Care Teaching Hospital at Kuppam, Chittoor District, Andhra Pradesh

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Abstract

Self-medication, the practice of using medications without a doctor's prescription, is a growing global public health issue, particularly in resource-limited settings. In pregnancy, self-medication can pose serious risks, including misdiagnosis, incorrect dosages, drug interactions, and prolonged use. This study aimed to assess the prevalence of self-medication, and the factors associated with it among pregnant women at a tertiary care teaching hospital in Kuppam, Chittoor district, Andhra Pradesh. A descriptive cross-sectional survey design was used with a non-probability purposive sampling technique to select 200 pregnant women. Data were collected through structured interviews and organized into four sections: socio-demographic variables, maternal variables, a checklist on self-medication prevalence, and factors associated with self-medication. Descriptive and inferential statistics were used for data analysis. The study found that 49% of pregnant women reported using self-medication. Among them, 87.8% consumed medication rarely, 67.3% for headaches, and 78.5% used topical medications. The primary factors contributing to self-medication included lack of time to visit a hospital (70.4%), minor health issues (72.4%), convenience (77.5%), and financial constraints (37.7%). Significant associations were found between self-medication and factors such as educational qualification ($p < 0.001$), occupation ($p < 0.000$), area of residency ($p = 0.004$), health problems ($p = 0.000$), and chronic illness history ($p = 0.000$). The findings suggest that self-medication is prevalent among pregnant women and is influenced by multiple socioeconomic and health-related factors.

Addressing these factors through awareness and proper prenatal care could reduce the risks associated with self-medication.

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INTRODUCTION

According to the World Health Organization, self-medication is when individuals choose and use medicines to treat illnesses or symptoms that they recognize themselves. This is a global practice observed across all socio-demographic groups. The prevalence of self-medication is high worldwide, reaching 68% in European countries. Some countries had higher rates. For instance, a study reported a prevalence of 87% in northern India. Other studies in India have shown high rates of self-medication in rural Maharashtra (81.5%), Haryana

(73%), Delhi (92.8%), Erode (62%), Puducherry (71%) and Mumbai (85%). However, lower prevalence rates have been reported in Maharashtra (29.1%) and Hyderabad (30.5%) [1].

Self-medication involves the use of manufactured or homemade drugs without a prescription to treat symptoms or self-diagnosed health conditions. Common drugs used for self-medication include analgesics, antimalarials, antibiotics, and cough syrups. A significant concern regarding self-medication during pregnancy is that these drugs can cross the placenta and enter the bloodstream of the baby. The medication particles are small enough to pass through the placental barrier, along with essential nutrients for the development of the baby. The effect of any medication on a developing baby depends on the specific drug and trimester of pregnancy in which it is taken. Therefore, it is very important to pay special attention to medications during pregnancy, especially in the third trimester, and healthcare providers should weigh the benefits and risks of medication effects on the mother and fetus [2–5]

Objectives

1. To assess the prevalence of self-medication among pregnant women.
2. To determine the association between the prevalence of self-medication among pregnant women and socio-demographic and maternal variables.
3. To determine the association between the prevalence of self-medication and factors associated with self-medication among pregnant women.

Hypothesis

1. H_{01} : There is no significant association between the prevalence of self-medication among pregnant women and their socio-demographic and maternal variables.
2. H_{02} : There is no significant association between the prevalence of self-medication and the factors associated with self-medication among pregnant women.

MATERIAL AND METHODS

Research approach: Qualitative approach. *Research design:* Descriptive cross-sectional survey design. PES Tertiary Teaching Hospital, Kuppam Andhra Pradesh. The population comprised all pregnant women attending the outpatient department at the Tertiary Care Teaching Hospital at Kuppam, Andhra Pradesh. *Sampling technique:* Non-probability purposive sampling. *Sample size:* 200 pregnant women, *research variables* demographic variables, maternal variables, prevalence of self-medication among pregnant women, factors associated with self-medication among pregnant women, description of the tools. *Section A: Socio-demographic variables:* age of the pregnant women, religion, marital status, education qualification of mother, educational qualification of husband, occupation of mother, occupation of the husband, area of residence, distance from health facilities, monthly income, and health insurance. *Section B: Maternal variables:* parity, gestational age of pregnant women, antenatal visits, place of antenatal visit, place of delivery of last baby, health status of last baby, history of self-medication used, health problems during pregnancy, and chronic illness. *Section C:* a checklist to assess the prevalence of self-medication among pregnant women. *Section D:* a checklist to evaluate the prevalence of self-medication and the factors associated with it among pregnant women. The tool was validated by experts in the field of medicine and nursing using Cronbach's alpha test; the reliability of the tool was obtained, and it showed 0.90, for the prevalence of self-medication and 0.92 for the factors associated with self-medication. The study protocol and ethical clearance were obtained by the authority of the institution, and consent was obtained from each selected sample; a pilot study was conducted for one week, and the results showed the feasibility of conducting the study; the data collection procedure used was structured interview questionnaires method among the pregnant women based on the objectives of the study by the investigator after reviewing literature on prevalence and factors associated with the self-medication conceptual framework based on modified Rosenstoch's (1947) and Backer Maiman's (1975) was used [6, 7].

RESULTS

The findings of the study revealed the following points/sections.

Section I. Frequency and percentage distribution of socio-demographic variables

Table 1 shows the frequency and percentage distribution of socio-demographic variables, including age of the pregnant women (in years), religion of the pregnant women, educational qualification of the Mother, Educational qualification of the husband, occupation of the pregnant women, Occupation of the Husband, Area of residence, distance from the health facilities, family income per month, health insurance, type of diet, and type of family among pregnant women.

Table 1. Frequency and percentage distribution of socio-demographic variables among pregnant women (N=200).

S.N.	Socio-demographic variables	frequency (f)	percentage (%)
1	<i>Age of the pregnant women (in years)</i>		
	a. Below 25 years	141	70.5
	b. 26 to 30 years	45	22.5
	c. 31 to 35 years	13	6.5
	d. Above 36 years	1	0.5
2	<i>Religion of pregnant women</i>		
	a. Hindu	176	88
	b. Muslim	22	11
	c. Christian	2	1
3	<i>Educational qualifications of Mother</i>		
	a. No formal education	8	4
	b. Primary education	8	4
	c. Secondary education	16	8
	d. Higher secondary education	85	42.5
	e. Degree and above	83	41.5
4	<i>Educational qualification of husband</i>		
	a. No formal education	4	2
	b. Primary education	11	5.5
	c. Secondary education	16	8
	d. Higher secondary education	56	28
	e. Degree and above	113	56.5
5	<i>Occupation of the pregnant women</i>		
	a. Housewife	175	87.5
	b. Daily wages	1	0.5
	c. Private employee	14	7
	d. Government employee	10	5
6	<i>Occupation of the husband</i>		
	a. Daily wages	29	14.5
	b. Private employee	74	37
	c. Government employee	20	10
	d. Business /private	77	38.5
7	<i>Area of residency</i>		
	a. Rural	143	71.5
	b. Urban	57	28.5
8	<i>Distance from the health facilities</i>		
	a. Less than 5 km	16	8
	b. 6 to 10 km	16	8
	c. 11 to 15 km	30	15
	d. Above 16 km	138	69

9	Family income per month		
	a. Less than 10000	21	10.5
	b. 10001 to 15000	69	34.5
	c. 15000 to 20000	40	20
	d. Above 20001	70	35
10	Health insurance		
	a. Yes	149	74.5
	b. No	51	25.5
11	Type of diet		
	a. Vegetarian	7	3.5
	b. Non-vegetarian	192	96
	c. Eggetarian	1	0.5
12	Type of family		
	a. Nuclear family	32	16
	b. Joint family	167	83.5
	c. Separated family	1	0.5

Section II. Frequency and percentage distribution of maternal variables

Table 2 shows the frequency and percentage distribution of maternal variables, including gravidity, gestational age of pregnant women, number of antenatal visits, place of antenatal visit, health status of previous baby, health problems during pregnancy, and chronic illness before pregnancy among pregnant women.

Table 2. Frequency and percentage distribution of maternal variables among pregnant women (N=200).

S.N.	Maternal variables	Frequency (f)	Percentage (%)
1	Gravida		
	a. Primi	105	52
	b. Multi	95	47
2	Gestational age of pregnant women		
	a. 37 weeks	95	47
	b. 38 weeks	33	16
	c. 39 weeks	35	17
	d. 40 weeks	37	18
3	Number of antenatal visits		
	a. Less than 4 visits	44	22
	b. 5 to 7 visits	88	44
	c. 8 to 10 visits	57	28.5
	d. 11 to 13 visits	10	5
	e. More than 14 visits	1	0.5
4	Place of antenatal visit		
	a. Government hospital	1	0.5
	b. Private hospital	99	49.5
	c. Both a and b	100	50
5	Health status of previous baby		
	a. Healthy	82	41

	b. Stillbirth	6	3
	c. IUD	10	5
	d. Congenital malformation	2	1
	e. Not applicable	100	50
6	Health problems during pregnancy		
	a. Yes	22	11
	b. No	178	89
7	Chronic illness before pregnancy		
	a. Yes	14	7
	b. No	186	93

Section III. Frequency and percentage distribution of prevalence of self-medication among pregnant women

Figure 1 and Table 3 show the frequency and percentage distribution of pregnant women according to how often they consumed self-medication.

Frequency and percentage distribution of pregnant women according to the reason for self-medication, common drugs used for self-medication, sources of information analyzed, and data observed in Table 4–6 (N=200).

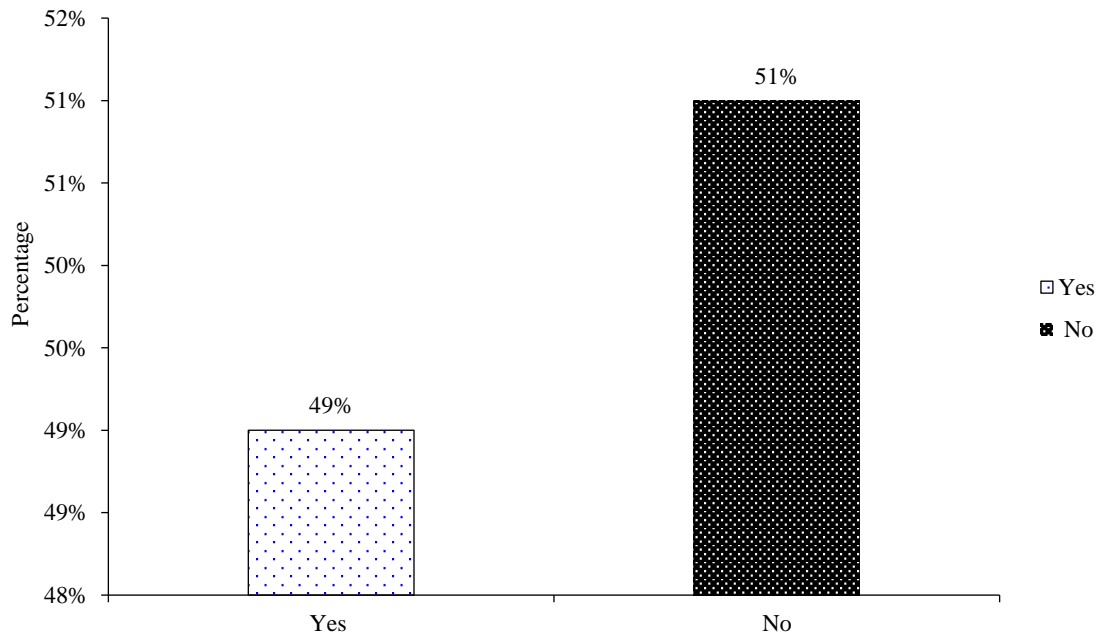


Figure 1. Prevalence of self-medication among pregnant women.

Table 3. Frequency and percentage distribution of pregnant women according to how often they consume self-medication (n=98).

How often do you consume self-medication	Frequency (f)	Percentage (%)
a. Frequently	7	7.1
b. Rarely	86	87.8
c. Often	5	5.1
Total	98	100

Table 4. Frequency and percentage distribution of pregnant women according to the reason for self-medication (n=98).

S.N.	Reason for self-medication	Frequency (f)	Percentage (%)
a	Headache	66	67.3
b	Nausea/vomiting	4	4.1
c	Common cold	1	1.0
d	Cough	1	1.0
e	Fever	9	9.2
f	Heartburns	1	1.0
g	Back pain	16	16.3
Total		98	100

Table 5. Frequency and percentage distribution of pregnant women according to common drugs used for self-medication (n=98).

S.N.	Common drugs used for self-medication	Frequency (f)	Percentage (%)
a	Paracetamol	19	19.4
b	Antiemetic's	2	2
c	Cetirizine	1	1
d	Antacids	1	1
e	Topical medication	78	78.5
Total		98	100

Table 6. Frequency and percentage distribution of pregnant women according to sources of information (n=98).

S.N.	Sources of information	Frequency (f)	Percentage (%)
a	Self	67	68.4
b	Friends	7	7.1
c	Family members	14	14.3
d	Health personals	10	10.2
<i>Total</i>		98	100

Section IV. Frequency and percentage distribution of factors associated with self-medication among pregnant women

The lack of time to go to the hospital was 69 (70.4%), economic problems were 37 (37.7%), presence of minor illness (72.4%), easy and convenient, 76 (77.5%), no money spent on doctor consultation was 21 (21.4%); to avoid travel, 45 (45.9%), To avoid crowd in visiting doctors were (67.3%) were unavailability of doctors near my house, 62 (63.3%); pharmacy near home, 22 (22.4%); and lack of frequent transportation facilities (41 [41.8%]).

Section V. Association between the prevalence of self-medication among pregnant women and sociodemographic variables

The calculated chi-square values of the prevalence of self-medication and its association with the socio-demographic variables of pregnant women showed that there were significant associations with the educational qualification of the pregnant women ($p < 0.001$), occupation of the pregnant women ($p = 0.000$), and area of residency ($p = 0.004$). Hence, the research hypothesis H_{01} there will be no significant association between the prevalence of self-medication among pregnant women and their socio-demographic characteristics was *rejected* [8].

Section VI. Association between the prevalence of self-medication among pregnant women and maternal variables.

The calculated chi-square values of the prevalence of self-medication and its association with the maternal variables of pregnant women showed that there was a significant association with the health problems of pregnant women with a p-value of 0.000, and chronic illness before pregnancy with p-values of 0.000; hence, the research hypothesis H_{01} there will be no significant association between the prevalence of self-medication among pregnant women with their maternal variables was *rejected* [9].

Section VII. Association between the prevalence of self-medication and factors associated with self-medication among pregnant women.

The calculated chi-square values show the association between the prevalence of self-medication and its related factors among pregnant women, revealing significant associations with lack of time, economics, presence of minor illness, ease and convenience, no money to spend on doctor consultation, avoid travel, avoid crowding in visiting doctors, unavailability of doctors near my house, pharmacy near home, lack of frequent transportation facilities with a p-value of <0.001, there a strong association was found between the prevalence of factors associated with self-medication; hence, research hypothesis h_{02} there will be no significant association between the prevalence of self-medication and the factors associated with self-medication among pregnant women was *rejected* [10].

CONCLUSION

The following conclusion was drawn based on the findings of the study. The overall findings of the study clearly showed that there was a significant prevalence of self-medication and factors associated with self-medication among pregnant women.

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